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ISSUE 1 ■ AUGUST 1989 ■ £2.95

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5 GAME

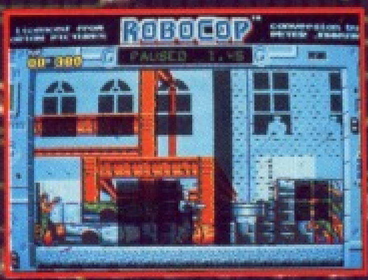
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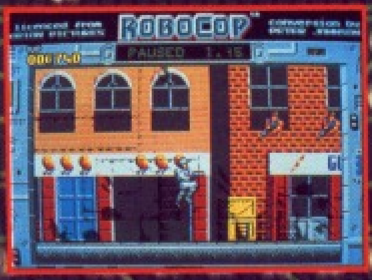
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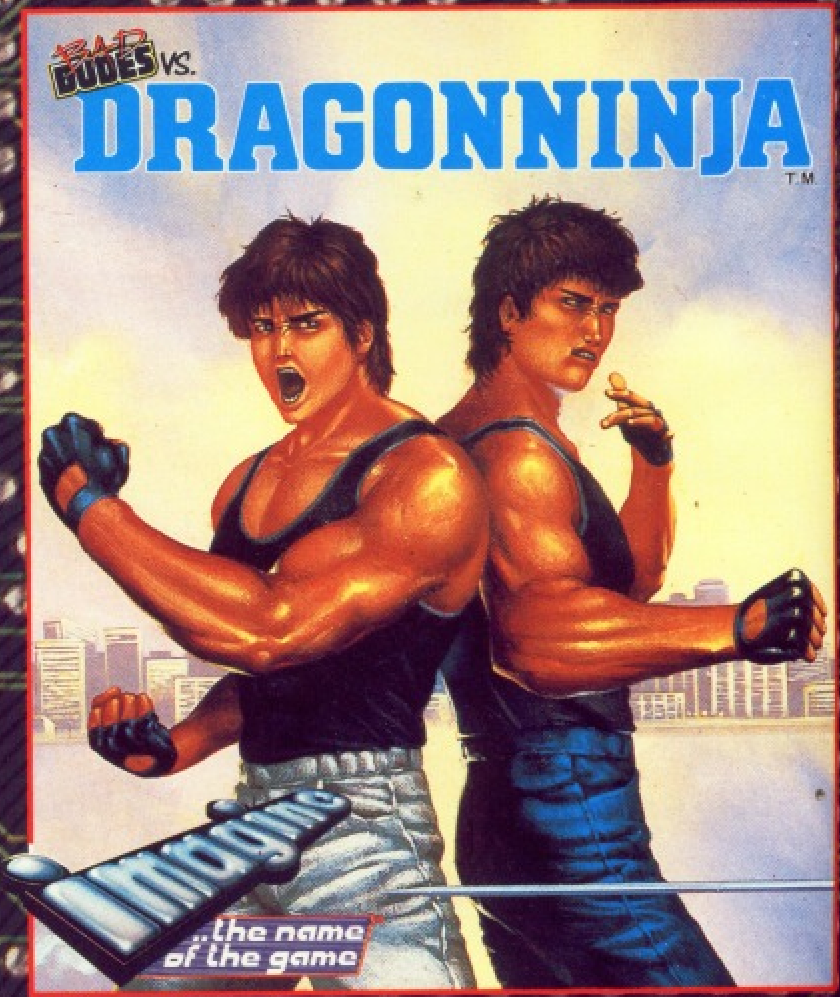
SIZZLER

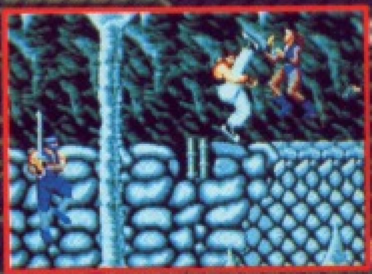
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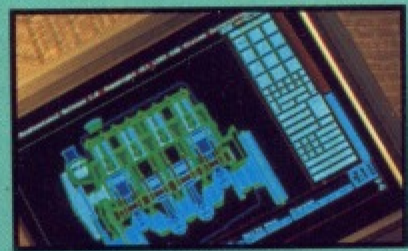


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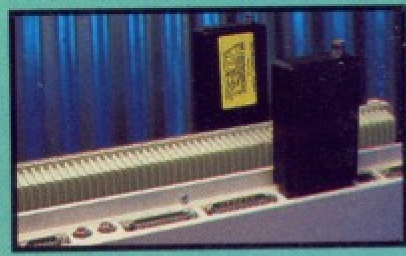
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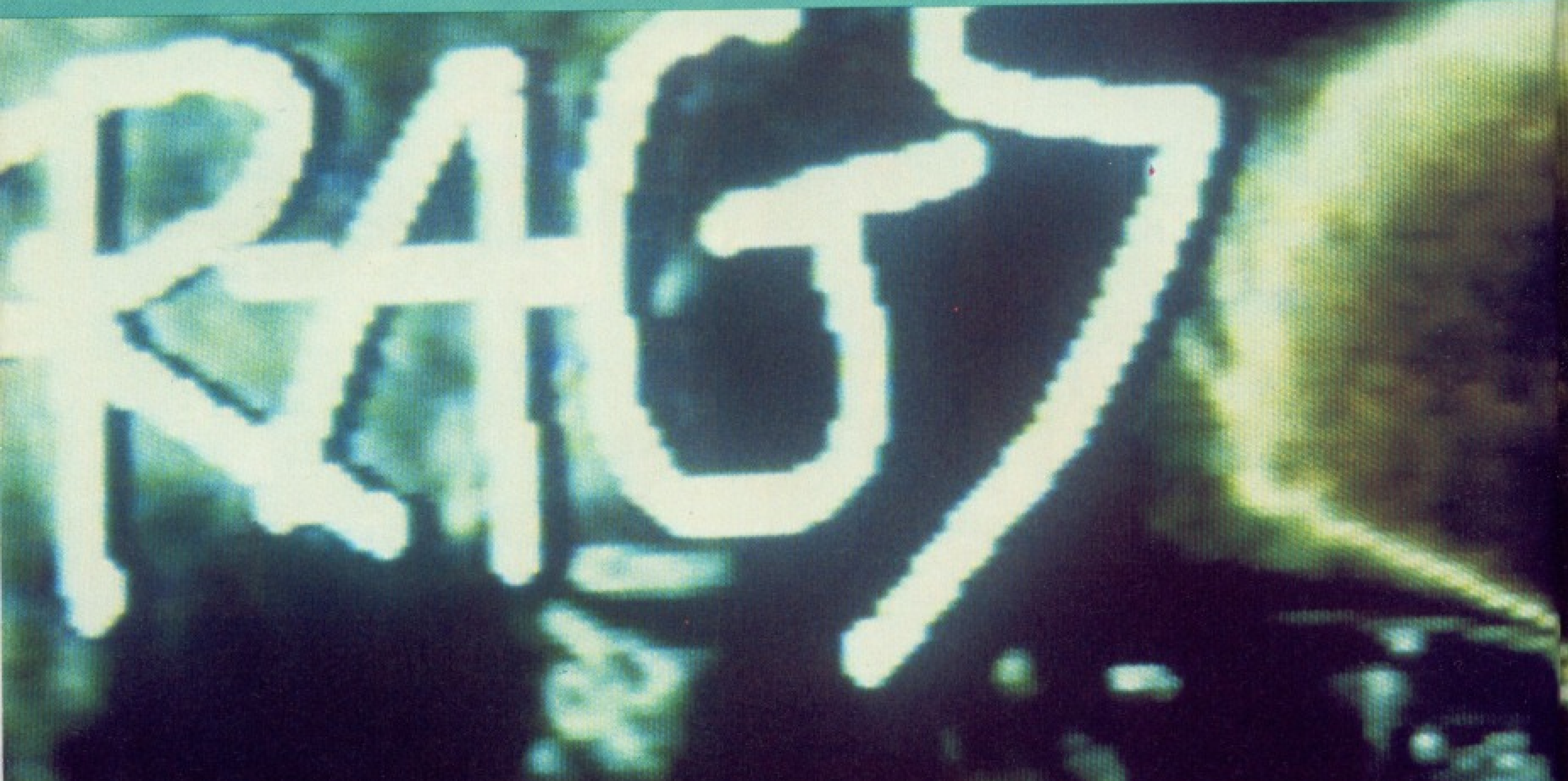
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GAMES

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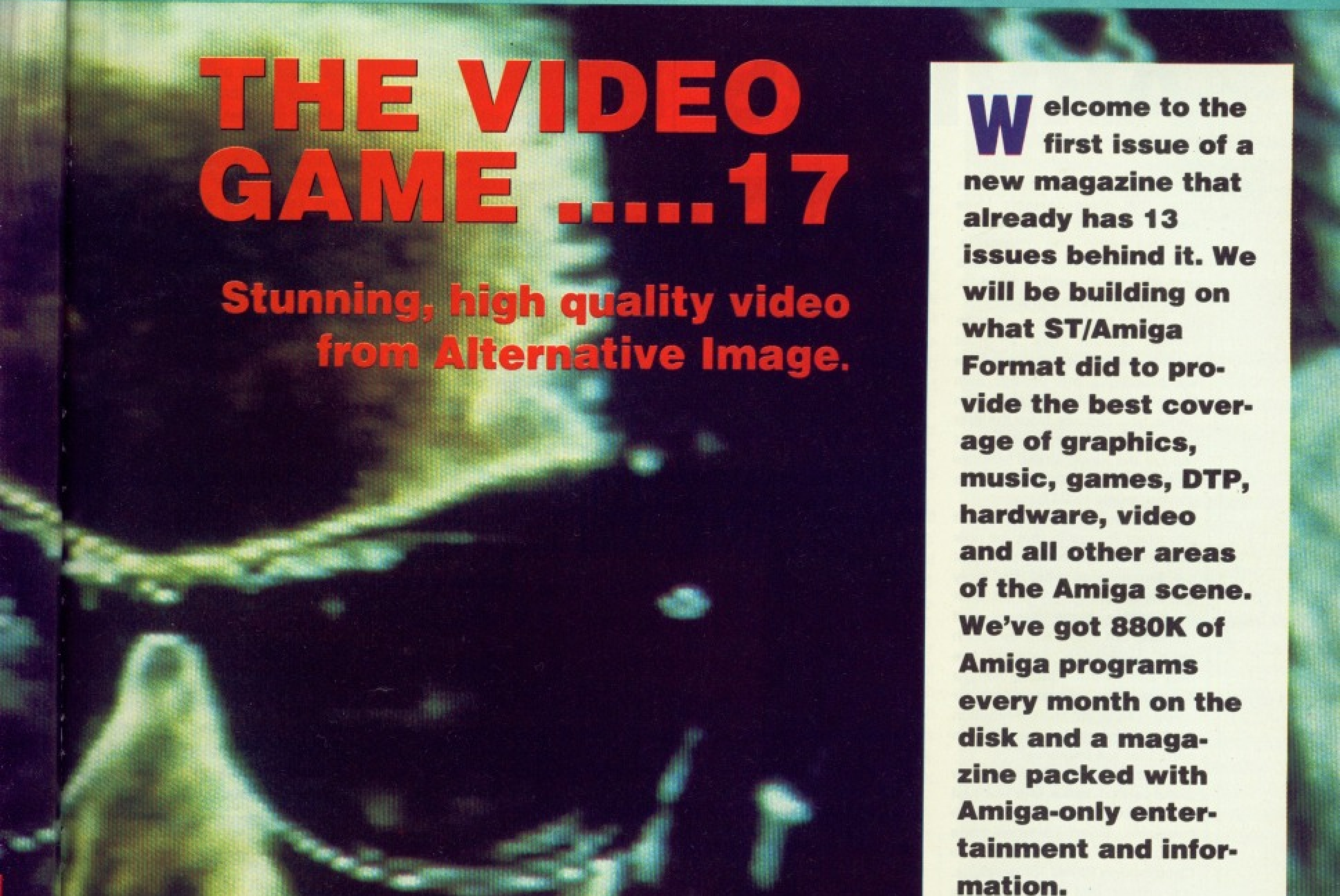


SPECIALS

DISK EXTRA 85



Ocean's *The New Zealand Story*



THE VIDEO GAME 17

Stunning, high quality video from Alternative Image.

Welcome to the first issue of a new magazine that already has 13 issues behind it. We will be building on what ST/Amiga Format did to provide the best coverage of graphics, music, games, DTP, hardware, video and all other areas of the Amiga scene. We've got 880K of Amiga programs every month on the disk and a magazine packed with Amiga-only entertainment and information.

There has never been a better time to own an Amiga or read Amiga Format.

REVIEWS

COMPETITION:

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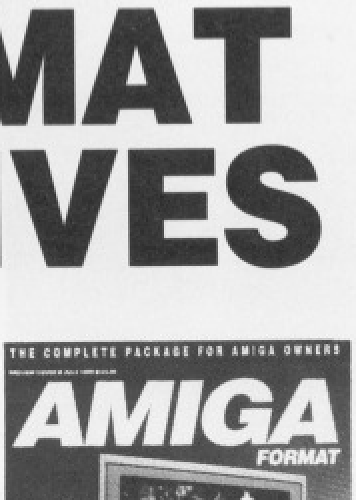
AMIGA FORMAT ARRIVES

We have finally achieved the thing that Amiga owners have been clamouring for: and here it is, your very own magazine, *Amiga Format*. 116 pages packed with news, reviews, features and entertainment.

The brand-new *Amiga Format* already has a great history behind it, and now we are branching out on our own things are going to get even better. You can see from the first issue that the balance of content will be the same broad mixture of everything from graphics to games, music to DTP.

Of course, one of the most important things is that we now have the whole cover disk just for Amiga programs. Not only will we be bringing you the best in playable game demos and utilities, but there will be much more interaction between the disk and features inside *Amiga Format*. The opportunities for using the disk in conjunction with the graphics section in particular are immense.

There are also plenty of new features that make this not just the biggest but the best Amiga magazine. Brian Larkman joins us from next issue as Contributing Editor for graphics. His well-proven expertise as a lecturer in computer art and long-time Amiga user will produce the most authoritative reviews, helpful tutorials and superb artwork. On the music side we've also called in the best in the form of Jon Bates. He starts this month with an overview of the Amiga music scene and will be providing definitive reviews and tutorials in future issues.



■ ***Amiga Format* finally arrives.**

There are many old favourites that are being expanded to meet demand including Workbench, PD Update and Gamebusters. We are also busy sifting through your questionnaire replies to make sure we give you exactly what you want.

It's a very exciting time for all of us: the Amiga is taking off like never before and we at *Amiga Format* are here to help you make the most of it.

SUBSCRIBE! SEE DETAILS ON PAGE 28

VIRUS X VIRUS

The most popular PD virus-killer, *Virus X*, has itself become the victim of an infection. American author Steve Tibbet's thoughtful provision of the source code with the program has let nefarious hackers produce a version that itself acts as a virus. Fear not, though! The dodgy version can be identified by the version number 3.3: Steve is skipping straight from Version 3.2 to 3.4.

ARTS CONTEST

As part of the Edinburgh Arts Festival, Amiga Centre Scotland is running its animation competition again this year. Winners will have their work displayed at a special exhibition at the Festival. Entries should be sent on PAL VHS videotape or on disk, to arrive by August 24. Further information about this unique event can be obtained from Martin Lowe at the Amiga Centre Scotland, 4 Hart Street Lane, Edinburgh EH1 3RN, or by phone on 031 557 4242.

SHOWINGS

What a glorious show it was too! If you don't mind being trapped in an enclosed space with several thousand Commodore owners, that is. The Amiga dominated totally, there was hardly a C64 in sight, and consequently this year's Commodore Show was also buzzing with a lot more interest than some previous ones.

There was no single outstanding event but the feeling of excitement was tangible and there was a host of new products on show and being announced. Serious software and hardware were very much the order of the day, with only a couple of games houses represented, so the vibrant atmosphere was all the more gratifying.

Attendance was 10% up on the previous show at the 12,000 mark for the three days and the organisers, Database, are pleased with the way things went. As yet there is no date set for the next show, but we'll keep you posted.

MICROILLUSIONS WRANGLE

Visitors to the Commodore show may have noticed that Microlllusions had their own stand where *Music X* was on display, and that copies of *Photon Paint 2* were on sale at other stands. At first glance this isn't curious, until you realise that Activision are still claiming the UK rights to these Microlllusions products.

At present the situation is unclear but it appears that Activision are involved in a legal tussle with both Microlllusions in the US and the new group which claims to represent them in the UK. Which means that neither program will be widely available until the dispute is settled.

Let's hope that's not too long away, because this is what Jon Bates and Brian Larkman had to say about *Music X* and *Photon Paint 2* respectively...

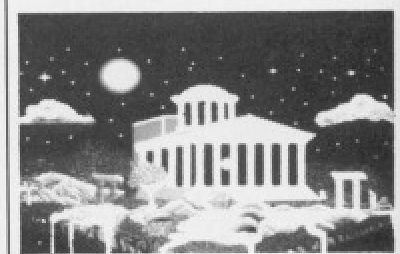
MUSIC XTRA

Music X for the Amiga is coming. But from where? The American software house Microlllusions has been promoting this stunning sequencing, voicing and sampling package heavily in the American press for well over a year now. Surprising, therefore, that the only versions seen this side of the pond were demo versions that had yet to be de-bugged. The first demo version, which was pretty spectacular, was shown by Activision who claimed to have an exclusive deal with Microlllusions. Confusion has arisen now since dealers and the press alike have been informed that The Software Business now has "the exclusive UK and European rights to *Music X*", and was exhibiting at the Commodore show and taking orders with one ex-Activision staff member doing the demo work, although at the time of going to press they "hadn't got the final version yet" (not bad for a program that has been advertised for nearly eighteen months!) Activision claim the matter is "under negotiation" with mutterings about contractual obligations. Time to stand back and watch the litigation!

PHOTON PHANTASY

After a few quiet months on the Amiga painting front, things are hotting up again. First it was *Deluxe Paint III*, soon it will be *DigiPaint 3* but now we have *Photon Paint 2!*

The original *Photon Paint* has remained the favourite of the three HAM painting packages for most artists because it is the easiest to use and most 'painterly'. Many traditional effects are easy to achieve, including the best watercolour effect so far on the Amiga with Blend. The new version provides lots of new features and greater speed without sacrificing the effortless operation.



The most dramatic additions are contour mapping and multi-page, 'pageflipper' type animation, but also included are stencils, airbrush, rub-through, pantograph, auto-shadowing, cycle draw and many more minor enhancements.

In line with our new policy for graphics reviews, a really full description of *Photon Paint 2* including DIY tips and tutorials, written by people who are using the program every day, plus original artwork that will be included on the cover disk, is being prepared. It takes time, but you will see it soon! *Photon Paint 2* by

SIGNS OF LIFE

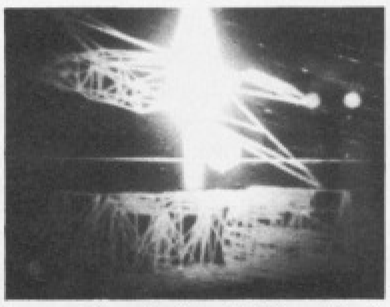


Microillusions is available on import from Digipro, Southampton (tel 0703-703030) at £79.95.

HOLOGRAPHIC AMIGA

One of the more unusual sights at the Commodore Show was the first hologram generated from a microcomputer image. Using equipment developed at Loughborough University and an Amiga 500, Rob Munday and his team, with advice from the Amiga Centre Scotland, have produced a 3D holographic view of a partially-animated wireframe bird rendered using *Sculpt 3D*.

To produce it, over 100 frames were generated and recorded onto a holographic plate in stereo pairs as a series of vertical strips. Viewing the image from the front, slight movements of the head reveal hidden parts of the object that would normally only be seen if it was real and solid. This is normal for a hologram as anyone with a bank card



knows. Usually though, the object from which a conventional hologram is taken is a 3D model; here it is a series of flat, 2D images. This is much more difficult and has previously only been achieved using high-powered Cray supercomputers. Now, in another first for the Amiga, a 3D computer model has been recorded holographically.

The physics is quite difficult, but if I understand it correctly, the process works something like this: conventional holography captures the image of a complete 3D object in such a way that the parts of it that can be seen vary according to your viewpoint, just as would happen with a 'real' object. In effect the hologram has superimposed an almost infinite series of 'views' of the object which are revealed as your viewpoint is changed. Stereoscopic holography has the same effect but in this case the 'views' are captured separately like the frames of a stereovision film, one for each eye, in the form of pairs of vertical strips on the plate.

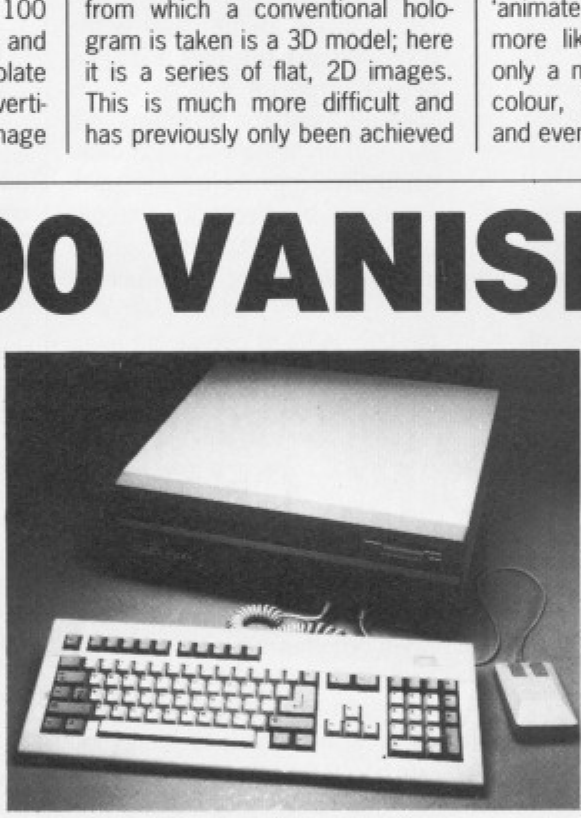
The advantage of this method is that the content of each 'frame' is much more controllable so that any object capable of being modelled on a computer can be captured in 3D and even animated. The use of Amigas, or other cheap micros, also means that the commercial potential of such 'animated' holograms is much more likely to be realised. It is only a matter of time before full-colour, fully-animated sequences and even whole films appear.

A2500 VANISHES

If you are looking for the promised review of the new Amiga 2500 in this issue, then don't bother, because the A2500 has been shelved. Planned to have a 14 Mhz 32-bit 68020 CPU and up to 4 Mb of RAM, the A2500 would be a straight upgrade of the A2000 through existing add-ons, which is thought to explain the strange non-appearance. Commodore prefer to wait for the A3000 which will contain the 25 Mhz 68030 CPU.

However, it remains to be seen whether or not the appearance of the A2500 UX, which will run the Unix OS, is imminent. Another rumour that has resurfaced is that we will shortly see A500s fitted with 1Mb of RAM as standard. Apparently there are such machines in existence, but whether they become available in the shops is as yet unclear. Commodore have made no announcement of the machine: unlike the A2500, which was openly talked about. We will have to wait for further details before getting our hopes up.

The A500 is also making news because of suggestions that it is being 'grey imported' from Holland. This has prompted complaints from retailers and an announcement over the PA at the Commodore show that such machines being sold off cheap might cause problems for the buyer. So watch out for any machine that comes with a foreign manual at a knock-down price, because you could have problems with different voltage powerpacks and the lack of a valid warranty if anything should happen to go wrong.



■ The A2500: no longer a machine in its own right.

SNIPPETS

JUST SAY THE WORD

Computers can be of great use to the disabled in all manner of ways, one of which is demonstrated by Arnor's new speaking version of their word processor *Protext*. It's designed for use by the blind and is currently still undergoing development and testing.

All *Protext*'s functions are available from the keyboard, which is essential because pull-down menus and a mouse are no use to blind users. The WP will be able to speak each key as it is pressed, speak every word as it is typed, read back the current line, read back from the start of the paragraph, speak characters as the cursor is moved and speak useful status information. Price and release details have not been decided yet but Arnor promise discounts for the visually handicapped. More on 0733 68909.

ROMBO MACHO VIDEO

Rombo are well known for their digitisers and other add-ons on other machines, but now they are bursting onto the Amiga scene for the first time with the Video Image Digital Interface, VIDI-Amiga.

Although it's their first attempt it could make a big impact because it is attractively priced at £99.95 and has an impressive list of features. These include grabbing frames from a moving video in a 50th of a second in both mono and colour, load and save in IFF format, overlaying an incoming frame anywhere on an existing one, a user-definable palette, analogue contrast and brightness control, eight-level brightness control and drop-down menus.

The package includes a video cable, so all you need is a VCR or camera. At time of going to press Rombo were still working to make the unit produce colour pictures and the latest details can be obtained from them on 0506 414631 or at 6 Fairbairn Road, Livingston, Scotland EH54 6TS.

ACCOUNTING FOR TASTE

Equinox have enhanced their *Small Business Accounts* program to create *SBA Xtra*. Its new features add to an already comprehensive list of capabilities.

Money moguls will be interested to know that it provides profit and loss statements, trial balance, full audit trail, VAT reports, balance sheets, budgets, day books, account group reports, transaction listing by batch or account heading and a constant update of cash position and profit.

The new features are debtors and creditors information, enhanced journal entries, a chart of accounts and relaxed security allowing copying of the chart of accounts and access to DOS commands.

SBA Xtra costs £115 and existing users can upgrade for £34.50 + £2.50 P&P. Equinox Business Systems can be contacted for details on 01 729 0990 or at 16 Anning Street, New Inn Yard, London EC2A 3HB.

SNIPPETS

PLANNING AHEAD

Good news for financial folk. A new version of Best UK's *Plan/IT* spreadsheet has arrived. Version 3.0 has been reduced in price to £126.50 and offers new features, including full import/export of *Lotus 123* worksheets, Arexx support, Dataview mode from the database and an outline mode for viewing different levels of data on screen.

Owners of *Maxiplan* can upgrade to *Plan/IT* for £57.50. Best will also accept 'trade-ins' on other existing similar software. Further info from Best UK, Block 3 Unit 1, Baird Avenue, Strutherhill Industrial Estate, Larkhall, Strathclyde ML9 2PJ. Tel:0698 887770.

COLOURFUL CARDS

Heads-up artistic geniuses with a few pennies to spare! Hi Tension are working on Ami-graphex, a graphics expansion card in two versions. Zooming in at £899 will be Ami-graphex 1, which raises the screen resolution to 1024x768 pixels and provides a palette of 256 colours on screen from a choice of 16 million. The card comes fitted with 2Mb of high-speed RAM.

The Ami-graphex 2 will cost the princely sum of £1599 and for your cash you get 1280x1024 pixel resolution and the same palette options. Double the amount of high speed RAM in this one, 4Mb, allowing it to handle two full screens at the same time. Further details from Hi Tension, Alexander House, Station Road, Aldershot, Hampshire. Tel:0252 344454.

CENTRAL TELEVISION

The Amiga is taking off as the most important tool in video work with new products like G2's Videocenter bursting onto the scene. The Videocenter combines in one neat box the facilities of a video mixer, genlock and PAL encoder.

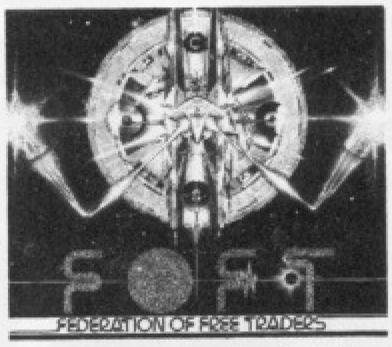
The Center mixes an incoming video signal with computer output using sliding faders or software to control fade to black and the mix level. It also has a filtered and buffered RGB output for connecting an RGB monitor. YC inputs and outputs take advantage of the new Super-VHS systems. G2 are no novices to the video game having produced the G2 MasterPieCe 900 that, among other things, mixes the graphics and live action for the BBC's quiz show Going for Gold. The fact that they produce everything from genlocks to broadcast-standard graphics and captioning systems really makes this one to watch out for. The Videocenter costs £595 from G2 Systems on 0252 737151.

If talk of PAL encoders, genlocks and buffered RGB outputs is just so much wibble to you, then check out the video feature on Page 17. Also keep your eyes peeled for a review of the Videocenter coming to *Amiga Format*'s pages soon.

FOFT ARRIVES: THE FIRST OF A SERIES

Gremlin's massive space trading shoot-em-up, *Federation Of Free Traders*, is set to arrive on the Amiga in the near future. Billed by Gremlin as an '*Elite* beater', *FOFT* was some two years in development and was advertised heavily in the press prior to its release on the ST. When it finally arrived the game proved to have a few major gameplay flaws which, when combined with the appalling manual, reduced the game almost to unplayability.

Gremlin listened to all the criticisms, read the reviews, took note of what people had to say and set about correcting the game before releasing the Amiga version. Ian Stewart, Gremlin's MD, is now "Very, very happy with the product – we've really done the business and got it just right." When asked if he thought Amiga *FOFT* really was an '*Elite* beater' Ian replied "It's not an *Elite* beater we're after so much – we just wanted to produce a really good game that would appeal to fans of this genre". Let's hope Gremlin really have got it right this time: and watch the reviews pages next month for the definitive *Amiga Format* in-depth review.



The next game in what's planned to be a *Federation* series is well under way. It won't be another space trading cum shoot-em-up, but it promises to be just as large and have just as much playability. It's not due for release until sometime next year, so we'll bring more news as it comes in.

ANIMATED MAGIC

A really useful piece of software must have two qualities if it is to be marketed successfully as a professional product. It must do its job well, obviously, but also it ought to look good, operating intuitively and ergonomically so that its power is not hidden by a complex interface. In short, it should be fun to use. *ANIMagic* (Aegis, £69.95 from Digipro, Tel 0703 703030) is a powerful and almost unique piece of software for editing ANIM files, but like many Aegis products it suffers from an ugly and clumsy interface that takes time to get to grips with.

This is a great pity because, unlike most other animation editing and sequencing programs, it allows direct editing and rearranging of individual frames of the actual compressed ANIM files. What it does can be divided into two areas: ANIM editing and enhancement, and Digital Video Effects (DVEs). Among the editing features are: full cut and paste between ANIMs, plus merge and crop, 'A-B Rolls' type transitions, layering of several ANIMs on top of each other, adjustment of colours (for one frame or globally) and optimise palettes, and use of any resolution or screen mode. DVEs include all the usual transitions, wipes, turns, rolls and spins plus a library of special effects such as shatters, fountains etc that can be 'enhanced' with other customised effects by the user. The layers of effects possible can be so complex that the dialogue box provides space for a four-line description that can be saved with the DVE. A lot of people are really going to need this versatile and powerful package.

KLASSIX GOING CHEAP

The first three titles on US Gold's new budget label Klassix are *Out Run, Foundations Waste* and *World Class Leaderboard,* each one for the amazing sum of just £9.99. As yet no other full-price software house has followed suit in the move to cut-price bestsellers.

Among US Gold's major competitors are Microprose, who have no plans to introduce a budget 16-bit label according to Managing Director Stewart Bell. "You get what you pay for. If you can't compete on quality or gameplay, you could try to compete on price. If I had bought a game at £25 I would be very annoyed to see it being sold for £10." Activision's Amanda Barry said they too had "no plans for a budget label, we're a full-price only company."

Mastertronic already produce budget Amiga games like *Sidewinder* and *Chase* for £9.95. Spokesman Andy Wright was unconcerned by US Gold's move and promised "a new range of 16-bit titles at a new price point." Watch these pages for more details.

DESIGNS ON DISKS

Over recent months, Antic seem to be breaking the habit of a lifetime and converting their excellent Atari graphics programs for the Amiga. This is quite a revolutionary development for the Amiga. Already *Cyber Paint* has warped across in the form of *Zoetrope* (available in PAL format from ISM: 0983 864674): now the whole set of Design Disks has arrived, along with an entirely new one.

A number of other developers are starting to offer 'ready-made' objects for use in 3D modelling systems, but this set from Antic is the most comprehensive and useful available. Disks on offer are:

- **Architectural Design: everything from a doorstep to a complete city. Instant Frank Lloyd Wright.**
- **Future Design: space stations, space craft, robot vehicles and androids. DIY Star Wars.**
- **Human Design: skeletal male and female human figures. Detailed structures that are anatomically correct. The ST demo did backward somersaults!**
- **Microbot Design: DIY robot kit. Almost all possible components for detailed, advanced robots.**
- **Interiors: latest addition to the set, with room plans, objects for the inside of a house, 3D clip-art.**

All the *3D Design* series are available from Precision Distribution (01 330 7166). Now we can look forward to *Cyber Texture* with eager anticipation.


Bloodwych

COMING ATTRACTIONS

HOT-OFF-THE-PRESS PREVIEWS OF ALL THAT'S NEW IN THE SOFTWARE WORLD

LONE WOLF AND THE MIRROR OF DEATH
Audiogenic

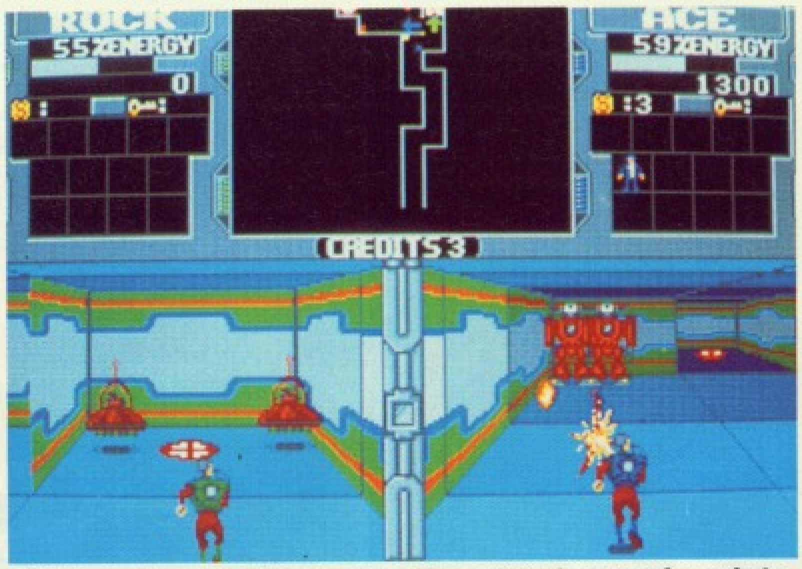
Somewhere in the sinister tower fortress of Kazan-Gor lies the Kai gem of power, the famous Lorestone. As the Lone Wolf, the last Kai Master, it's down to you to recover it. This arcade-action game is based on the Lone Wolf role-playing books of Joe Dever: so get your sword sharpened and prepare for some frantic on-screen combat very soon.



■ Assault with a deadly weapon.

XYBOTS
Tengen/Domark

Major Rock Hardy and Captain Ace Gunn star in this one or two-player strategic blast-em-up converted from the Atari coin-op. As well as blasting all the aliens, you have keys to find that allow access to locked areas of the maze. Like *Vindicators*, this game involves a lot more thought than your average arcade shoot-em-up and is best played with a friend.



■ Major Rock and Captain Ace take time out to destroy a few robots.

CASTLE WARRIOR
Delphine/Palace

The computer games arm of French record publishers Delphine is gearing up to launch a second game, full of arcade-style action and split into six levels. As Edred the Brave, on a mission to find the antidote to the poison that your father was forced to swallow, you'll have to battle through subterranean caverns, take on dragons, dodge spells lobbed at you by evil magicians and still make it home safely. Reckon you can handle all of that?

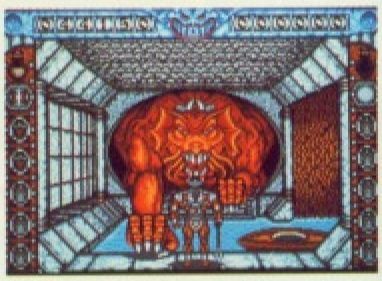


IMAGE WORKS

Image Works are not sitting still for a moment. A string of releases is up and coming, including *Crime Town Depths*, in which you play a mercenary summoned to return home and help defend the planet from alien attack. Sophisticated arcade action and superlative graphics are promised in this one, so watch the Screen Play pages closely.

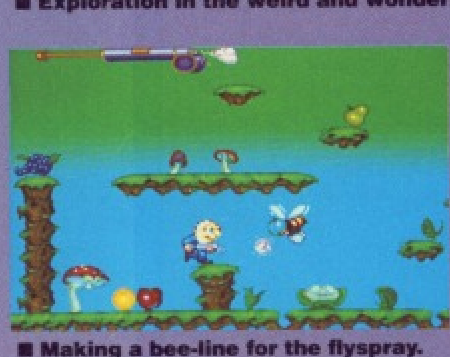
There's also a one or two player horizontally-scrolling shoot-em-up in the offing. Called *Phobia*, it has been designed by David Bishop and programmed by Tony Crowther and boasts fast and furious gameplay, strategy elements and more of those superb graphics.

Arcade adventure fans are also well catered for with the release of *Terrarium*. In the setting of a miniature world inside a large glass bottle, the player assumes the role of Captain Frontier and must rescue a scientist who has been miniaturised and imprisoned within the terrarium by a nasty bunch of louts from a neighbouring planet. There are jungles, swamps, deserts and forests to be crossed, clues to be found and puzzles to be solved in a game that's bigger than its setting.

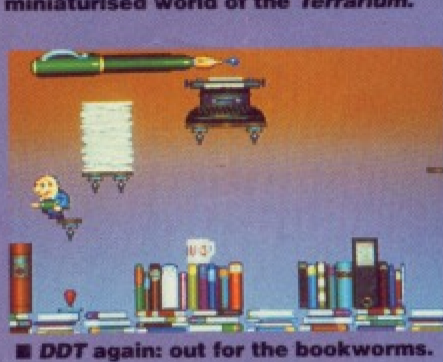
Getting back to arcade-style games, there's *DDT* coming up. Using Hold and Modify mode, this horizontally-scrolling platform game combines shoot-em-up and arcade adventure and is set on the cartoon-style world of ShoggleWaggle where the player takes the part of an apprentice Dynamic Debugger. With over 4,000 colours on screen, *DDT* promises to be something of a looker.



■ Exploration in the weird and wonderful miniaturised world of the *Terrarium*.



■ Making a bee-line for the flyspray.

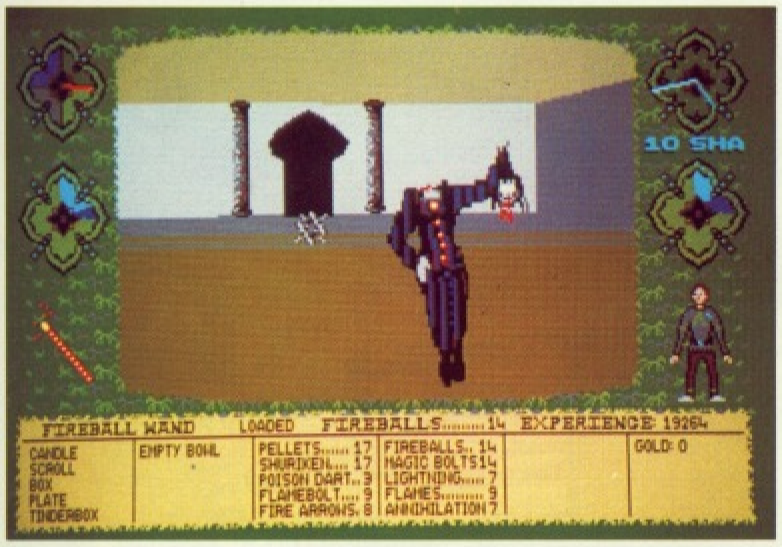


■ *DDT* again: out for the bookworms.

SLEEPING GODS LIE
Empire

The once-peaceful world of Tessera is under threat from the Archmage. Crops have turned bad, and the people's only hope is to find someone who can wake the sleeping god G'Nnir. That person, my friend, is you.

SGL is a real-time, viewed-through-your-eyes action adventure that has a huge game area and a large game task. There are numerous enemies to fight, if you can find some weapons, and friends to interact with (be prepared to go on sub-quests for additional help from some of these) so it looks as if you'll be engrossed in this for a while. Watch for the definitive review in next month's *Amiga Format*.



■ Letting *Sleeping Gods Lie* is the name of the game, but not the aim.

PAGESTREAM

Amiga DTP is hitting the high spots lately, and this imminent release from Silica Software seems likely to be another step forward. It will include many of the most sophisticated aspects of professional publishing amongst a vast range of features, but all at a cut-down price. When the finished, bug-free version is ready (not yet, contrary to opinion elsewhere) we'll bring you the full review.



■ *Pagestream* is certain to be a big step forwards for DTP.

INDIANA JONES AND THE LAST CRUSADE
US Gold

The man with the hat and the whip and the stubble and the dusty clothes is indeed back. Guide Indy through action packed escapades based on scenes from the film. There are four levels to this platform game: in the first level you play the boy Indy and have to rescue the Cross of Coronado. For the rest of the game you play the fully-grown-up Indy and complete similar missions. Get in practice now, because the whip-cracking action is starting on a screen near you shortly.



■ He raided the Lost Ark, he found the Temple of Doom: Indy's back!

LINEL

Swiss software house Linel is another bunch that hasn't been idle. The curiously-titled *Ooze* is due for release soon. From German programmers Dragonware, this adventure game sees the player in the role of one Ham Burger trying to rid his uncle's house of ghosts. *Ooze* is packed with puzzles and more than its fair share of humourous touches.

Strategists should keep their eyes open for *Kaiser*, a game in which you start as a lowly farmer and have to increase your wealth and power through careful land management and shrewd business deals. Become powerful enough and you'll have the power to set tax rates, build cities and start armies. Up to eight people can play, so it's going to be gloves off and back-stabbing all the way.

Last but not least is *Lords of Doom*, an icon-driven action adventure on the new Thriller label, formed by Linel and Dragonware. Lead a party of four adventurers in a fight to find and destroy the four Lords of Doom who have started their plan to dominate the world by infiltrating and taking over a small village. We'll be reviewing these as soon as they come in, so keep reading.



■ Hier kommen Deutsche Zombies.



■ *Ooze:* the kitchen knives could be potential lethal weapons.

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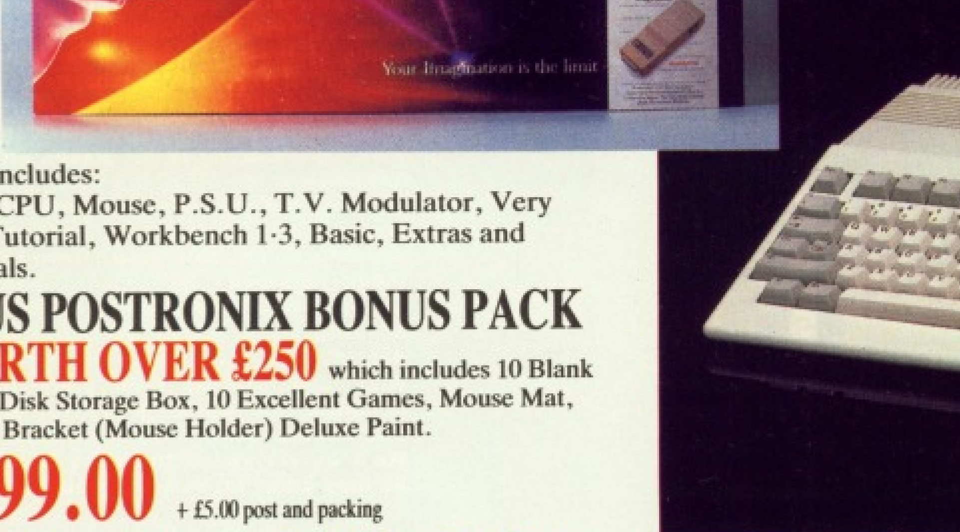
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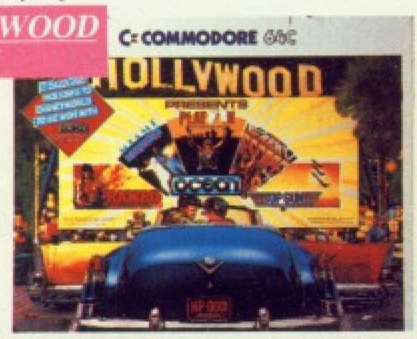


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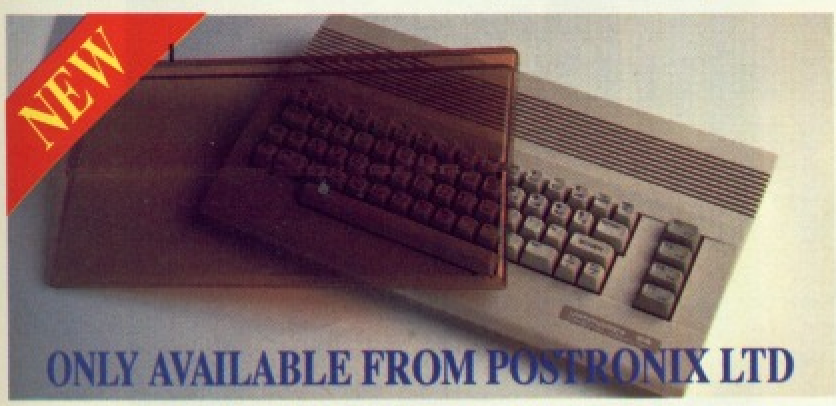
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EXACTLY WHAT ARE COMMODORE UP TO NOW?

If there was one person in the country who knew everything that was happening to the Amiga, who knew exactly what hardware and software would be available, you'd want to talk to him... so we did.

A sunny, blue-skied morning on a typical hi-tech industrial park near the edge of Maidenhead, beside the green fields of the Berkshire countryside. Within the friendly red-brick walls of Commodore UK's headquarters, in a light and airy office, sits Dr Rahman Haleem. He is head of Technical Support and a guiding light of the Amiga Developers' Advisory Board in this country: and as such, he knows everything there is to know about developments in Amiga hardware and software. He's also uniquely placed to give an insight into how Commodore see the Amiga's strengths and weaknesses, both now and in the future.

Commodore have been accused in the past of blurring the public perception of the Amiga, and even being confused about its role themselves, with the A500 daring to be more than just a winning games machine, and the A2000, expensive for home use, moving into powerful 'business' roles. But in fact, just a few minutes' chat with Rahman Haleem reveals a dedicated and impassioned commitment to a very definite future for the Amiga range. Not one single use, of course: but certainly a distinct direction dictated by the Amiga's architecture and capabilities.

HOME USE

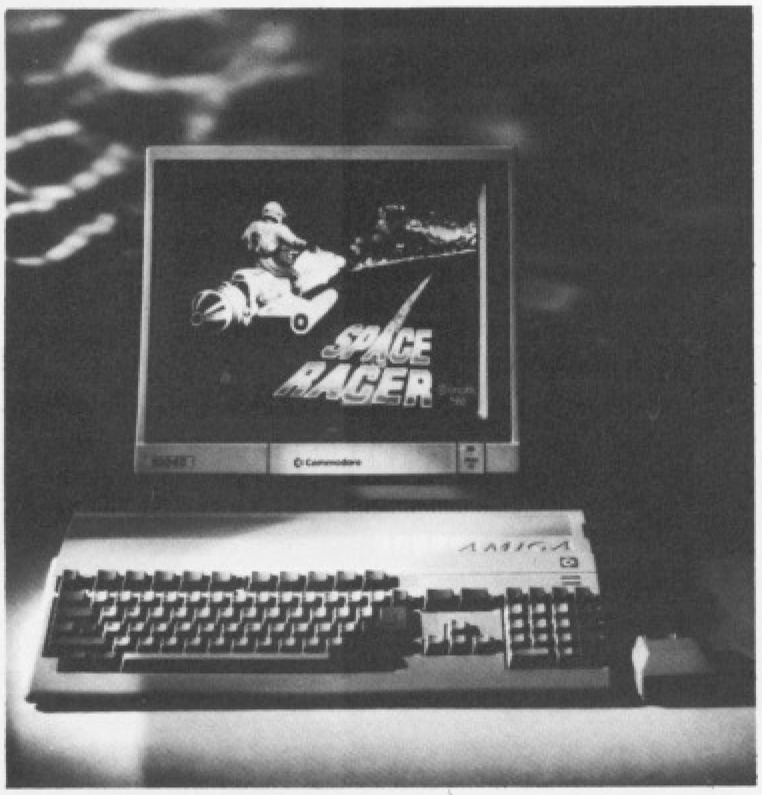
The A500, Dr Haleem believes, has now "broken through the barrier of 'would it make it' ". A touch wary of revealing sales figures, he prefers to look at the total number of machines that have been sold to date and now form the user base: the A500 has passed the one million mark, and of these some 6-700,000 are in Europe. In roughly a year, so Commodore reckon, the A500 will have outstripped the Atari ST. This comparison reflects the popular use of both as games machines, a role in which the Amiga is bound to become stronger and stronger as programmers' awareness of its capabilities grows.

> **"I have not seen a real Amiga game yet"**

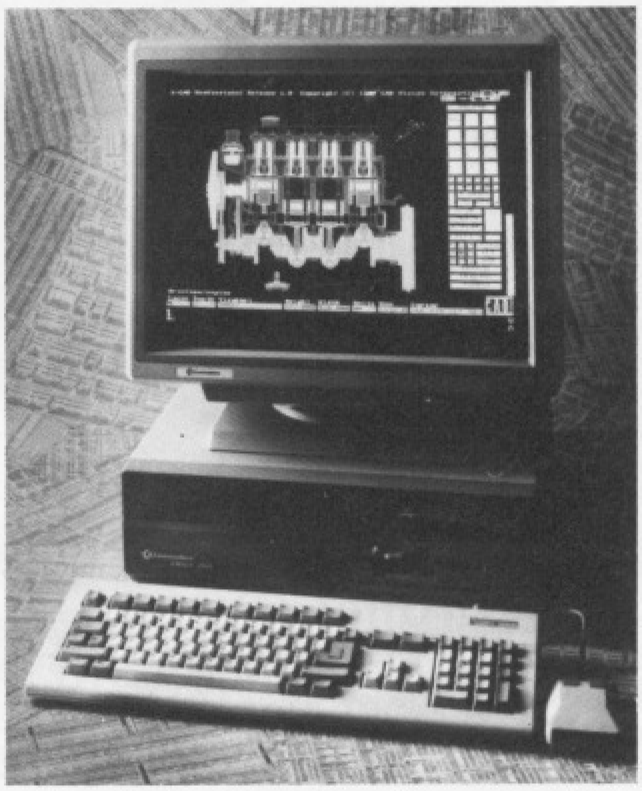
Rahman sees the increasing domination of the 16-bit games charts by Amiga games (19 as against 11 ST in the latest top thirty, he notes) and the concurrent release dates and equal prices of Amiga and ST games as "a major breakthrough", indicative that software houses now recognise the size and continuing expansion of the Amiga market. Even so, the Commodore people would join with many Amiga owners in lamenting the tendency to port over 16-bit games from poorer machines without any adaptation: "We're asking for Amiga-specific development". The full potential is a long way from being fulfilled. "I have not seen a real Amiga game yet", says Rahman. A challenge?

Meanwhile, any home machine nowadays must be able to support a couple of serious applications – Commodore would like to be able to bundle in some word-processing software with the computer – but wp and home accounts are not seen as necessarily the machine's greatest strength. They particularly wish to encourage the 'hobbyist' user, who needs the machine as a leisure tool.

The pattern for the Amiga's future is revealed by the great emphasis Commodore place on its graphics capabilities, which is not entirely unreasonable considering the power available in this field as a result of the machine's design. Dr Haleem hopes to be able to bundle in graphics and animation demos, perhaps even a tutorial along the lines of The Very First covering this area, and to continue to supply users with information about hardware and software for use in the graphics and animation field. In a similar



■ **The Amiga 500: soon to have 1 Meg?**



■ **The Amiga 2000: top of the range?**

vein, the Amiga is finding a niche for itself with the video enthusiast. Commodore were proud of the fact that *What Video* magazine voted it the most important video peripheral of the year: and it's been described as the most significant development since the video camera. With a simple genlock tool, the humble A500 can provide a range of professional quality post-production facilities, particularly useful for dropping captions, logos or animation sequences into any video picture.

Commodore see the Amiga as having great potential benefits for the musician, too, denying vehemently that the ST has any inherent superiority in this area except for an in-built MIDI interface, which can be bought quite cheaply anyway. The possibilities of the Amiga's internal soundchip have barely, as yet, been touched. All these areas for home use of the Amiga will be even more enhanced, we are assured, by a strong push from Commodore on the use of the computer's unique multi-tasking capabilities. Keep watching this space...

SERIOUS USES

Meanwhile, the expandable A500 with its big brothers the B2000, the possibly-to-be-released A2500 and the pipeline A3000, shift the Amiga up into the business user bracket. Once again, though, the impression Rahman Haleem gives is not of an ordinary computer trying to compete in the serious world of accounts spreadsheets and word-processing. Instead, it is apparent that he sees the machine as having specific strengths suited to particular uses. "The visual aspect is very important," he stresses, noting that the audio-visual power the machine delivers for the price is its unique selling point. However, the perceived cheapness and flexibility of the Amiga may actually discourage some specialist users:

"The Amiga: voted most important video peripheral by What Video"

in a certain European country, we were told, every time the price was increased sales went up.

Interactive video programs, particularly for training purposes, represent one area "where the A2000 needs to go", says Rahman. Desk-top presentation is another "very strong area", particularly considering the high-quality graphics the machine offers, and even using the computer as a delivery system for slides and the like. Desk-top publishing would not seem to be such a high priority, the niche having been amply filled already – "it's what you can offer that's different that counts" – although developments are expected on a Commodore-approved laser printer and other DTP peripherals shortly, following proper evaluation. Computer-aided design is another growing field, with some mention being made of use by architects and of a five-fold speed gain over the standard Autocad system.

Networking, with Ethernet and Arcnet already available, will also come in for some serious attention, and a cut-price network for schools is currently under test. This latter example reflects the Amiga's attempt to move in on the educational market (left somewhat open by the gradual fading of the BBC micro) and the BBC Emulator for the Amiga has already sold more than a thousand copies, which speaks for itself.

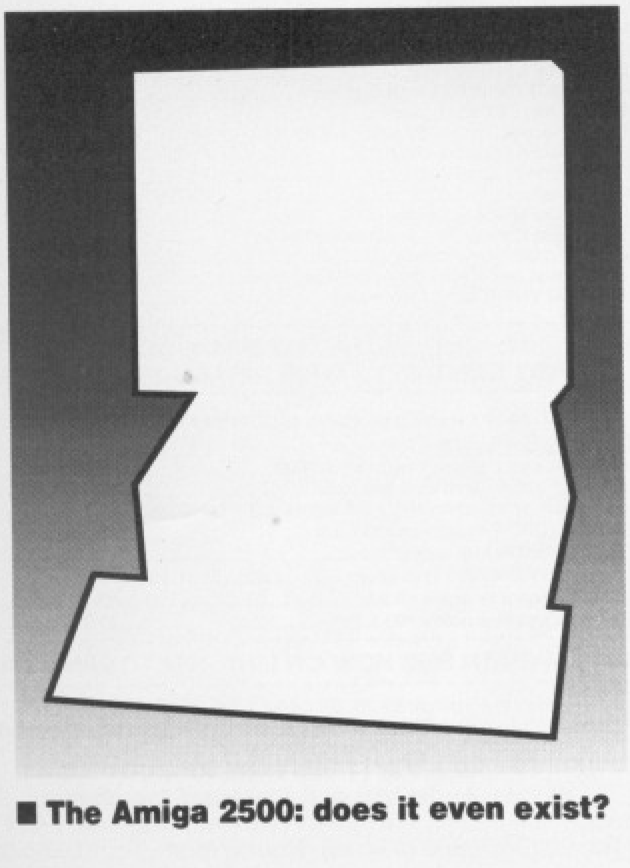
Perhaps the most glamorous professional use of the Amiga is in the heady media world of video and television: it's even been spotted by Rahman's son in use on Rolf Harris's programme! And we are told to expect some "very interesting developments" in the near future...

HARDWARE NEWS

The big news, of course, is of the imminent non-appearance in this country of the 68020-equipped A2500 workstation as an upgrade development of the Amiga 2000, of which there are more details elsewhere in these pages. The importance of development with an upgrade capability is highly stressed by Rahman, intended to protect Amiga owners from the "technology trap" that catches so many machines that were once at the forefront of progress.

Next step up, currently in development, is the A3000, employing a Motorola 68030 CPU to give a 600% speed increase running with a 25Mhz MMU and a 68882 processor. Rumours abound of a development machine under test by McDonnell Douglas in the States being glimpsed by a local user group, but Commodore are playing their cards close to their corporate chest...

This coyness, prompted by a laudable wish not to harp on about products that simply aren't available, also delays news of the A2024 hi-res monochrome monitor, which will feature 1K by 1K resolution and is clearly intended for use with DTP or similar high-quality presentation functions. More excitingly, we can bring you the news that Workbench 1.4 is currently with 12 developers in the UK for beta-testing in conjunction with the Enhanced Chip Set, ECS. It will feature a new non-interlace high resolution graphics mode and fast filing for floppies. Again, watch this space... ■



■ **The Amiga 2500: does it even exist?**

AMIGA DEVELOPERS' ADVISORY BOARD

The Amiga Developers' Advisory Board grew out of a meeting at the Commodore Show in June 1988. Its purpose is to act as a forum for ideas and to help sort out technical problems. New software and hardware is made available by Commodore to be "beta tested" in actual use, and to be updated as a result of the experience: for instance, Workbench 1.3 underwent five changes after developers' testing. The Enhanced Chip Set (ECS) and Workbench 1.4 are now under test with 12 developers.

A two-monthly mailshot gives details of new projects, and also supplies technical notes to advise developers on problems: recent Kickstart 1.3 loading problems with certain games on certain drives, for example, were traced to a loader that exceeded the specs laid down by Commodore.

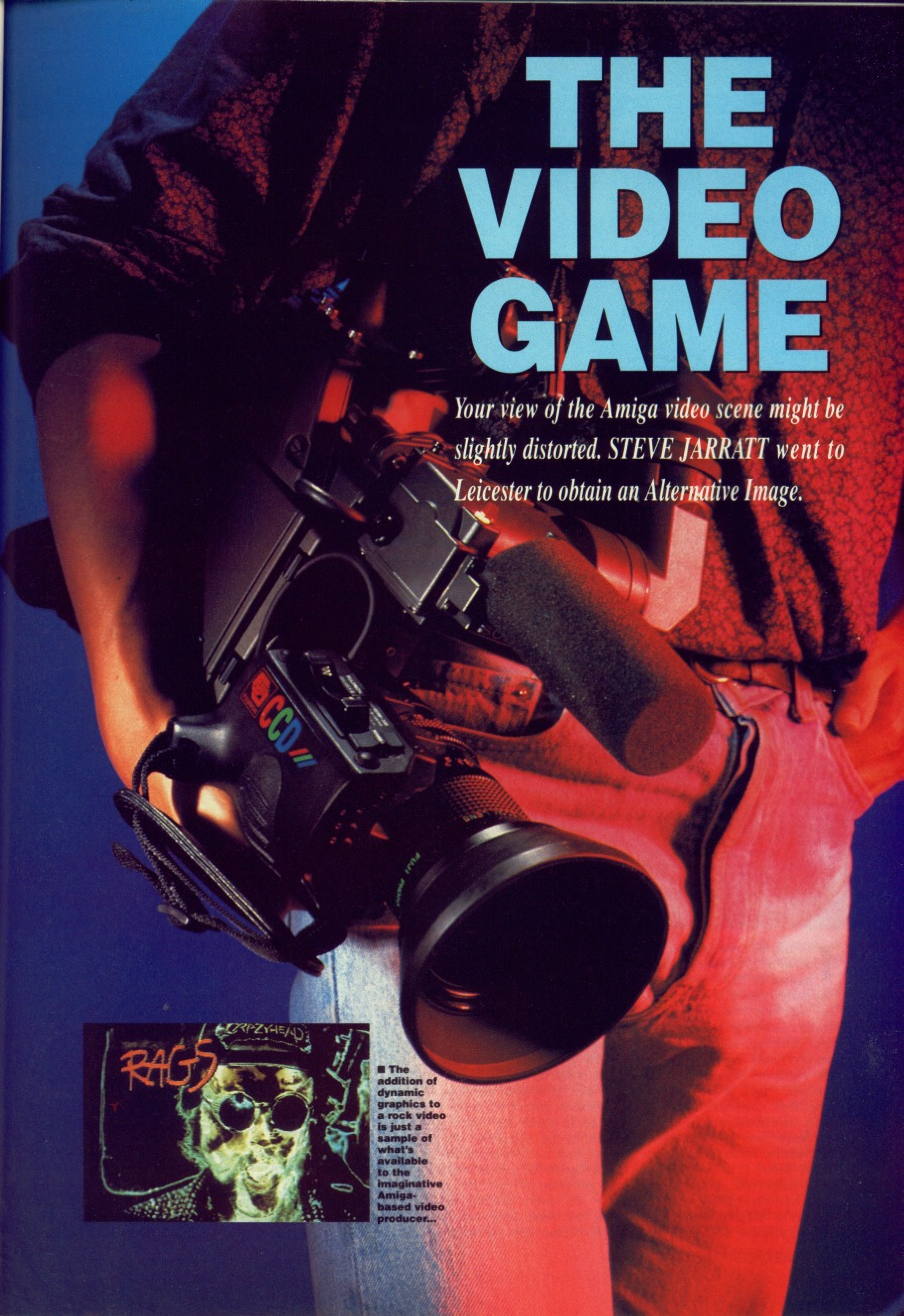
Developers are also asked to register their projects to avoid duplication of effort and unnecessary competition, whilst being guaranteed confidentiality in sensitive areas. This comes across as a benevolent version of Apple's coordination of Mac software developments, intended to encourage unique developments and seed ideas. Marketing opportunities are also opened up and passed around within a European forum. A test lab has been set up at Maidenhead to make the very latest hardware available in all the possible combinations, to which developers can bring their software and test it themselves: Commodore don't touch pre-release product, although they will test it all post-release. The new AGNUS chip is currently available for development testing.

So why do Commodore bother with all these expensive and time-consuming facilities? Basically, Rahman Haleem sees development support as an obligation for such a 'young' machine: "The Amiga has been around for three years now, and three years is not a long time." Support ensures the quality of Amiga software, which naturally benefits sales of the machine, helping "to break the chicken and egg situation" of 'no decent software, so no point buying' that has had such a detrimental effect on other innovative machines. It further serves to curtail harmful rumours about Amiga technical problems, and gives a picture of development which puts Commodore in a good position to ascertain what they should undertake themselves, as they did with the BBC Emulator.

Although Commodore UK do provide a technical support hotline for users, much of their effort goes into dealer support, so your dealer should always be able to help if you ever encounter any problems...

THE VIDEO GAME

Your view of the Amiga video scene might be slightly distorted. STEVE JARRATT went to Leicester to obtain an Alternative Image.



■ The addition of dynamic graphics to a rock video is just a sample of what's available to the imaginative Amiga-based video producer...



■ The shots on this page have been take from the 'Rags To Riches' rock video, featuring Leicester group Crazyhead.

A background of newspaper clippings builds up while the live action continues, keyed into a central frame that looks like a photograph.

The 'photo' is a matte drawn over the still newspaper image, and the live action is keyed in as a second video source. The live action footage had to be played back on and re-shot from a monitor tilted at the right angle to be matched into the angled 'photo' key box.

(Note that only the more expensive genlock units can be used as matte generators in this way. However, similar effects could be produced by quite simply using sequences of static, digitised images to replace the pre-edited video footage, with only a comparatively minor loss of quality in the finished product.)



■ Another shot from the rock video features a static head with pre-edited pictures of rock stars within the lenses of the shades.

With the freeze-framed head running through the Amiga, two lens shapes were drawn using a particular colour. This colour was then used as the 'key' on which the second video source would appear. In this case, three VCRs would be needed: one for the head, one for the stills in the lenses and one to record the composite image. The photos must be filmed to video separately and positioned in the frame so as to completely cover the key.

In much the same way that the power of 16-bit machines augmented by MIDI compatibility has opened a world of opportunity to electronic musicians, the Amiga's superior graphics capabilities combined with genlocking promise similar opportunities for the amateur video producer. However, the often-misleading hype that surrounds the topic belies the true nature of the beast: any Amiga owner who buys a genlock with the intention of creating 'Roger Rabbit II' is going to be sadly disappointed. But with the right equipment, plenty of time and some patience, impressive results can quickly be obtained.

The hardware at the heart of Amiga video production is the genlock. This ingenious device enables pictures from the Amiga to be composited with a video source from VCR, Camcorder or even another Amiga.

Any output TV or monitor picture is built up with hundreds of scan lines, all of which are drawn and redrawn around 50 times a second. To enable the separate images to be combined, their signals must be synchronised by locking together the line and frame sync generators of each source, hence the name 'genlock'. By keying the video signal onto a specified colour within the Amiga's RGB monitor output, the genlock effectively acts as a real-time 'matte' generator: anyone familiar with the blue-screen 'chromakey' system used in TV broadcasting will see immediate comparisons.

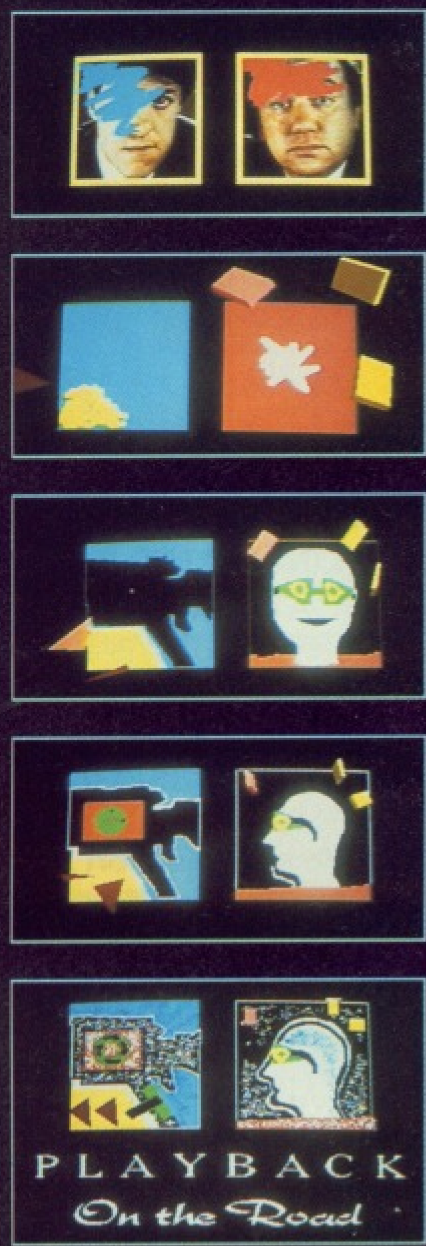
There's a variety of genlocks on the market, starting at just under £100 for use with domestic standard videos. After that, the limiting factor is cash: investment is reflected in increasing picture quality and system flexibility.

THE RECIPE FOR SUCCESS

Video production is hardware intensive, so anyone who doesn't have or can't afford access to the minimum of equipment might be advised to follow a different creative path. Realistically, would-be Julian Temples need an Amiga with one meg of memory; two video recorders; a genlock device; and specific software packages, depending on the image required.

A catalogue of additional equipment might fill the rest of the magazine, but to make the whole process a little less painful, interested parties should take a look at a video camera of some sort (a second-hand Camcorder is fine, although shoestring budgets can always stretch to short-term rental or even to filming in Super 8mm with subsequent transfer to video).

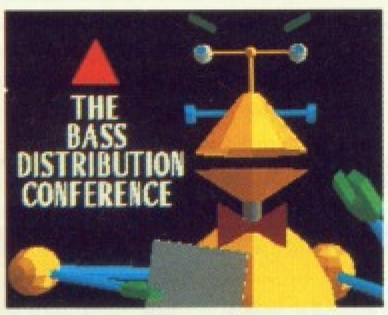




■ **PLAYBACK TRAINING LOGO.** Gradually, still photos of this training company's well-known creative directors are covered with artwork to build up their logo.

For reasons of clarity, footage of photos was shot in preference to using digitised images. These were genlocked into a ***D Paint II*** and ***Videoscape 3D*** sequence which gradually draws in frames of 2D and 3D animation. Once the faces are completely covered, the genlock is switched out in order to prevent any break-up of the artwork which uses white, the same colour as the key. The animation continues until the final logo is displayed in its entirety.





■ **To introduce a Bass Distribution conference, Alternative Image designed a 3D robot, using *Videoscape*, whose lip and body movements are synchronised to dubbed narrative.**

Live-action footage of an approaching Bass truck is run and then freeze-framed. The genlocked logo zooms in and the robot slides up into full view. The truck image then fades to black, leaving the robot to begin his intro speech.

All 3D animation sequences produced by AI are executed in the same way, using compressed files played back at 20-30 frames per second onto videotape. Recorded sections can then be edited together to form longer sequences.

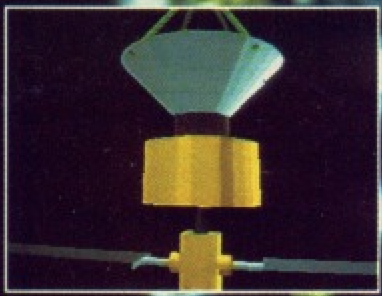
Memory space is always at a premium, but never more so than when fiddling around with graphic images. Extra RAM, second drives and hard drives become increasingly important as more and more computer-generated artwork is employed in the video production.

A digitiser provides a rapid route for the creation of graphics, and can be used as a base for hand-drawn artwork or to provide a source of static photograph-quality material for inclusion in composite sequences. Similarly, a real-time frame grabber can be employed to great effect. It allows you to take images from already-prepared videos, store them as IFF files and then re-touch or animate them as necessary using a suitable art package.

An imposing shopping list, but not totally outside the realms of possibility, especially for a group of friends, or for members of a video workshop (a visit to local information bureaux should yield the location of any facilities in the area). And although the right hardware is a vital necessity, it's not really how much you've got but what you do with it: the important thing is to have at least a clear idea of what the final image is to be. Storyboarding is a good habit to get into, allowing precise pre-planning, choreography and timing

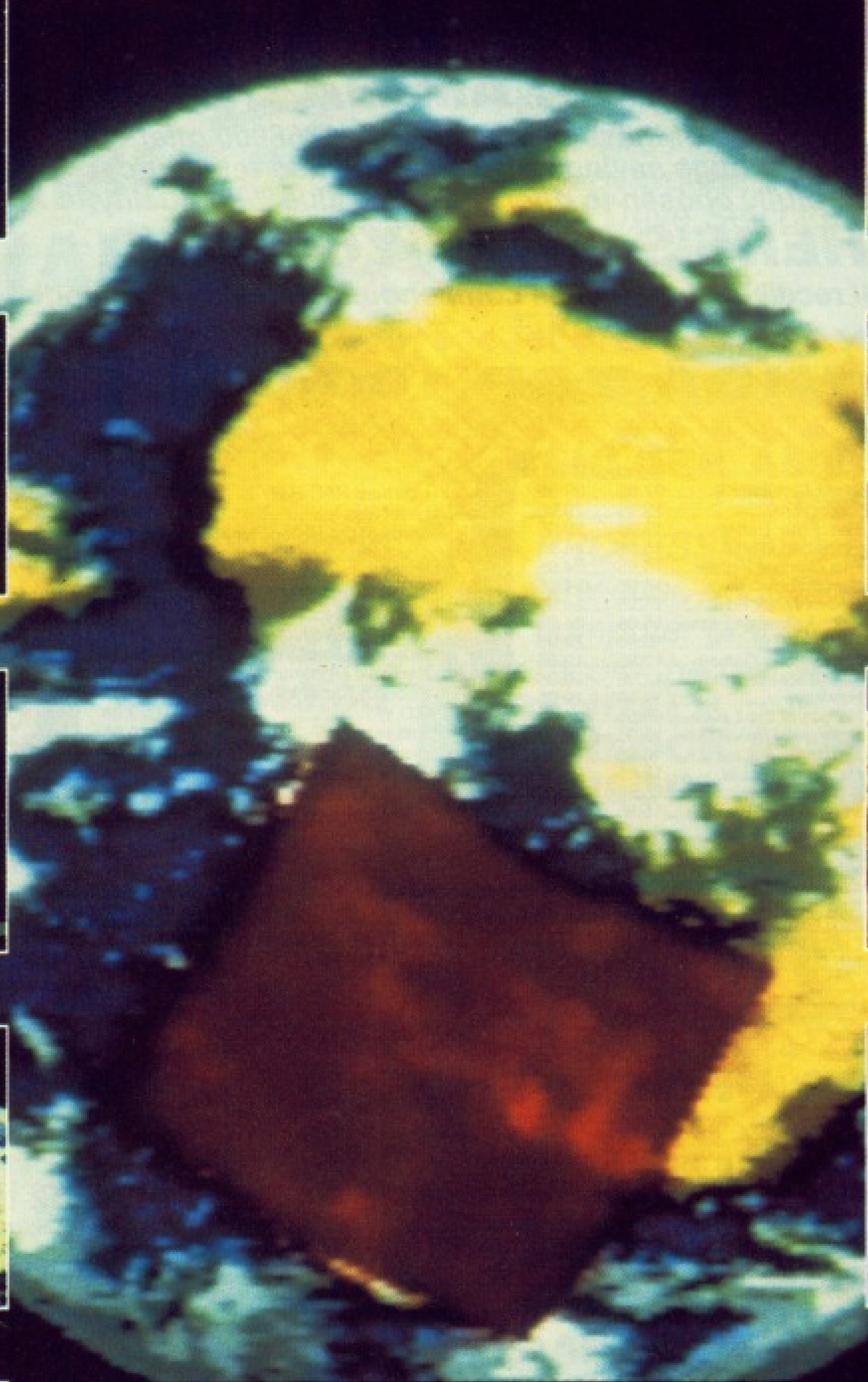




















A whole sequence from a Walkers Crisps' training video shows how images from different sources can dovetail together.

To represent some alien substance appearing in the production line, a 3D object created in *Videoscape* was animated tumbling through 'space', a *D Paint* backdrop.

The object falls toward Earth – more *D Paint* artwork – and passes by a spinning satellite to approach images of Earth grabbed from photos using *Digi-View*.

As we enter the atmosphere, a pair of 3D jets fly past a digitised cloudscape, while the object continues toward the factory: yet another digitised photo.

Live footage of the production line forms a background for the object falling among crisps.

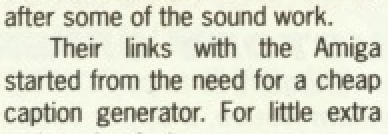
A piece of paper is lifted off the conveyor belt, and we cut to the narrator who stands against a Walkers logo: actually a subtle shot incorporating *D Paint* art genlocked over live action.

to be outlined before and during production of the sequence. The careful planning of palettes can also avoid any problems which might occur when dealing with keys of different colours.

SEEING IS BELIEVING

The images reproduced on these pages are all taken from videos produced by Alternative Image. This Leicester-based company first appeared in 1984 as a small production unit with the intention of creating visual media for small businesses as well as industrial and community projects. Their work encompasses all manner of presentations, including video productions and audio-visual slide shows, handling graphic design, photography and even looking after some of the sound work.

Their links with the Amiga started from the need for a cheap caption generator. For little extra outlay, the Amiga was seen as a



■ **Thanks to Alternative Image who are: Stuart Hicking, Clive Worden, Kathy Borg D'Anastasi, Dave Morcom, Shaen Cansdale and Henri Bujko.**

flexible and viable alternative to any specific hardware, also doubling as an entry-level computer generated graphics system. An A2000 was purchased at the end of 1987, which currently boasts 4.5 megs RAM, a 20-meg hard drive and two floppies. It also includes a turbo board composed of a 68020 processor with 68881 maths co-processor, 68851 memory management chip and 2 megs of 32-bit dynamic RAM: generally, one mean mother of an Amiga.

The most recent addition to the studio is a Polaroid Palette which outputs IFF files directly onto 35mm colour transparency film, producing very-high-quality screen shots. This now enables them to run a bureau service for the cost-effective production of slides for presentations, promotions etc.

IMAGE PROCESSING

Alternative Image are fortunate enough to have professional-quality equipment placed at their disposal. However, most of the effects described here could, with some effort, be reproduced using an amateur set-up, with only a minor reduction in quality.

Alongside an impressive array of equipment, the AI crew employs a large library of art packages to create specific effects. Of these, there are a few which get used more than most: used primarily in creating hi-res key areas for the

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THE ALTERNATIVE HARDWARE



LO-BAND U-MATICS – Professional video recording and playback equipment, which provides the next step-up in quality from VHS. Replaced in an amateur system by domestic quality VCRs. There is a variety of different video formats, from broadcast quality 1" tape to 3/4" Hi and Lo-Band U- Matic, and down through Super VHS (semi-professional quality VHS) to domestic VHS and Betamax tapes.



CAMERA – Sony M3A analogue. A digital 'chip' camera is another future purchase, but the Sony still manages to produce the goods. The current range of home video cameras is vast: no doubt there are some prime second-hand bargains to be picked up as well.



VISION MIXER – Allows a number of video sources to be combined with wipes, dissolves, fades etc. A new piece of hardware called the VideoCenter (G2 Systems; £595) allows video and Amiga signals to be mixed in a similar fashion and features slide controls for fades and adjustable mix levels.

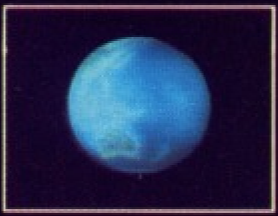
SPECIAL EFFECTS GENERATOR – As the name suggests, this box of tricks allows video sources to be mixed and composited using variable hard and soft-edged mattes. Both the SEG and TBC are pretty high-tech beasts and are difficult to imitate on a domestic level. But software packages such as *Aegis Video Titler, Video Studio* (£92), *TV Show* and *Video Wipe Master* (£79) go some way towards approximating these effects when used in conjunction with IFF graphics.



DUAL CHANNEL TIME BASED CORRECTOR (TBC) – Primarily a digital freeze-frame and effects box. Dual inputs enable single frames to be stored, re-touched and manipulated, or two sources to be combined in a variety of complex ways, using picture-in-picture, mosaics, fades, wipes, reveals etc. National Panasonic have produced a budget Dual-Channel TBC for around $1,000 (well, budget compared to a professional Single Channel TBC!) There are also a couple of real-time frame grabbers available for the Amiga, such as the high quality Superpic which comes in at £570 and features a 64K frame store and built-in genlock.



EDITING CONTROL UNIT – A Sony RM440 for anyone who's interested. Provides fine control of the Lo-band U-Matics. Unfortunately, the domestic equivalent is a stopwatch and index finger.









■ **Another introductory sequence produced for brewing company Bass features a spinning Earth over which a number of titles are genlocked. Each one appears and disappears using a variety of wipes, dissolves and other visual jiggery-pokery.**

The background footage lasts 30 seconds, but the entire title sequence couldn't be played back real-time due to memory restrictions. To resolve this, each logo was recorded individually against planet footage, neatly choreographed to avoid glitches when spliced together. A subtle fade between cuts completes the illusion of a single shot.

genlocking process, and also for producing background pictures or re-touching digitised images, is **Deluxe Paint II**. The arrival of **Deluxe Paint III** (£90) now facilitates the inclusion of simple and rapidly-produced animation.

TV Show (£61) does wipe transitions easily using an editable script file to create synchronised sequences. (Anyone wanting to include Amiga-generated sounds should look at Aegis' *Lights, Camera, Action*). *TV Show* can also move single bit-mapped images around, although this function has now been superceded to some degree by *Deluxe Paint III*.

Aegis Videotitler (£96) uses Amiga fonts in any resolution and comes with four stretchable fonts, which can be scaled, compressed or condensed and still retain their true outline. It also features a variety of wipe transitions and captioning effects, and can animate titles easily, creating .anim files like *Videoscape* does.

Version 2.0 of **Videoscape 3D** (£125) is used in preference to *Sculpt 3D* due to the speed of rendering. However, with the advent of **Sculpt 4D** (£368) including a 68020-compatible version of the program, AI now intend to produce full ray-traced animations with shadows and reflections. (*Sculpt 4D Junior* is about to be released at around £100 as a cut-down version without the ray-tracing facilities).

Finally, the **Pixmate Image Processor** (£43) is used to analyse pictures and re-format them to suit. For instance, a HAM image can be reduced to 32 colours and imported to *D Paint*, while retaining the overall integrity of the image. *PIP* is also used to clean up pictures, de-focus them, produce edge effects, and even compress or stretch the image. Palettes can also be customised, in a fashion analogous to a graphic equaliser for colours. ■

CONTACT BOX

For anyone wanting more information on the desktop video scene – hardware and software – the following contacts should yield some useful information:

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Talespin

THE INTERACTIVE PROGRAM CREATOR

WHAT IS IT?

Talespin is a package which allows the collecting together of drawings, texts and sounds onto a series of pages together to form an interactive story, guide or textbook, which is read purely by clicking the mouse on the drawings or texts. Variables may be used to control the flow of narrative or record progress made. Talespin itself is entirely mouse-driven and very user-friendly, requiring no programming skills for its use. It includes an art package as well as importing Neochrome, Degas or IFF picture files and also imports ST-Replay or Amiga A.M.A.S. created Digitised Sound. The use of sound is optional. Its facilities include giving full details of disk space usage, location of all pages referring to any particular page, drawing, sound or variable, completely interactive development allowing changes to any part of a title at any time, the copying of drawings and sounds from other titles, the 'chaining' to other titles allowing the spreading of a story or textbook across several disks, and the provision of Demo mode, which allows a title to run on its own for demonstration purposes.

WHAT IS IT FOR?

It can be used to create interactive adventure games, for profit, pleasure or instruction. Or in business to create a sales demonstration, or product servicing manual. Or in education: either using Talespin itself to teach the design and logic of computer systems in a non-technical way, or using Talespin as a vehicle for the teaching of any other subject. Or create an expert system with it. Or a school magazine. Or . . .

CREATE YOUR OWN COMMERCIAL PROGRAMS

Once you've finished developing your program whether it's an adventure, an educational program or other you can lock your program so no one can enter the development mode.

TALESPIN comes with a public domain display program called "Telltale" with this you can distribute your own programs or offer them to publishers.

COMPLETE AND COMPREHENSIVE MANUAL

The manual comes as a complete Tutorial with a scaled down version of "The Grail" adventure and also a comprehensive reference guide.

TALESPIN COMMANDS AVAILABLE

**choose/create title *Save position *load position *Select driver/folder *auto start *demo program *help *drawing define *page define *sound define *variable define *turn to another page *add drawing to page *modify palette *select background colour *Page entry options *List conditions *list/set variables *move drawing *swap colour *shrink reverse drawing *change drawing order *add/edit/delete text *add/delete/chain sounds *locate item *show disk space *show drawing/ sound/page size.*

REVIEW FOR TALESPIN

ST USER: *'Microdeal is putting its money where its mouth is and exhibiting justifiable faith in a very good product.'*

MICRO COMPUTER MART: *'Talespin in my opinion, is a highly commendable program.'*

ST/AMIGA FORMAT: *'Graphics cleverly used for variety — Talespin offers the opportunity to create an RPG type of adventure game which STAC and STOS certainly won't.'*

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■ 40K is allocated to samples in a *SEUCK* game, which allows a fair old bit of racket to be appended to the action. The Sound Editor control screen, however, allows you to meddle with the rate at which a sample will be played back, so the same effect can be used at different places within a game and yet sound completely different. Examine *Slap 'n' Tickle* in *SEUCK*, for instance, and you'll find that one sound is used five times: but you'd never realise this was the case by just playing the game. For continuous noise, effects can be looped: the tank in *Blood 'n' Bullets* drives across the screen accompanied by two looped samples.

The Sound Editor control screen allows a designer to fiddle around with a sample that has been assigned a sound effect number, adjusting the volume and sample rate at which it will be played, and previewing the effect of adjustments by clicking on the EFFECT button.



■ A little lateral thinking allows you to create extra effects by doing more than assign noises to obvious events, like bullets being fired, objects being picked up and so on. Tiny or even invisible objects can be assigned a sound and triggered for additional effects. In *Blood 'n' Bullets*, for instance, a tiny object that travels with a line of soldiers shoots off bullets which have the effect "Fire!" tagged to them. So as this row of enemy troops marches down the screen, their commander simply appears to be shouting "Fire!" at regular intervals.





■ Push scroll, static or continuous scroll can be applied to the background of a game created in *SEUCK*, or you can combine all three together in different levels of the same production. Apply some of that good ol' lateral thinking, and it's possible to come up with a game like *Psycho Blast*, which is quite different from yer traditional shoot-em -up, squire.

A few words of explanation. The player – the pink daisy-like creature – is confined to the central square in the playzone and can shoots a single missile with a prod of the fire button. Geometric shapes tumble onto the screen and hang around firing at the player until they are all shot or the level timer has counted down to zero, when the action moves to the next level.

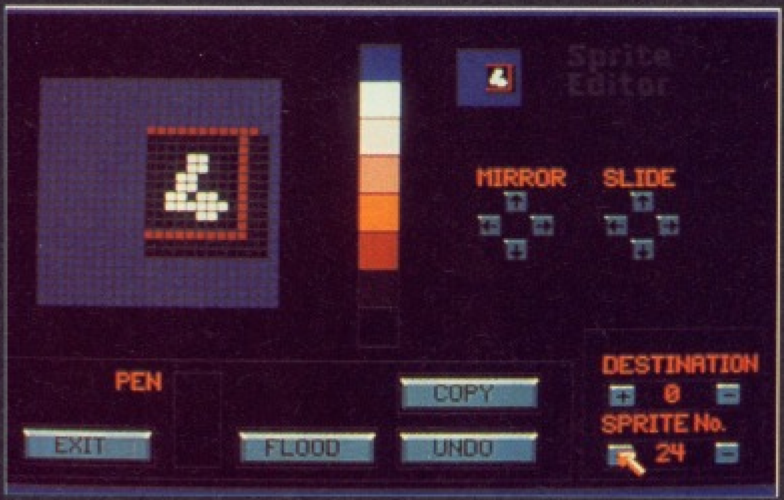
SHOOT IT YOURSELF

GRAEME KIDD finds that the easy way to be a Games Designer is to do it yourself with Palace's Shoot 'Em Up Construction Kit…

According to the original Palace masterplan, Amiga *Shoot 'Em Up Construction Kit* should have been released about six months ago, but it's only just appearing in the shops now: so why the delay? *SEUCK* has effectively been re-written, explains Palace supremo Pete Stone. "Lots of little changes have been made, but they are all important ones. We're releasing a product which has been re-vamped."

SEUCK originally appeared on the Commodore 64 a couple of years ago. The Sensible Software guys, Chris Yates and Jon Hare, were working on *Wizball* using a number of sprite and background utilities that Chris had written. They were talking over a few game plans with Palace when the idea of producing a construction kit based on the utilities came up, and a few months later *SEUCK* was launched to an appreciative audience.

Last year, work began on an Amiga conversion with Richard Leinfellner in charge of the project. Six or seven months' work followed which resulted in the early version seen by magazines around Christmastime. Then Sensible's Jon Hare was called in to use Amiga *SEUCK* to write a trio of games that would accompany the final

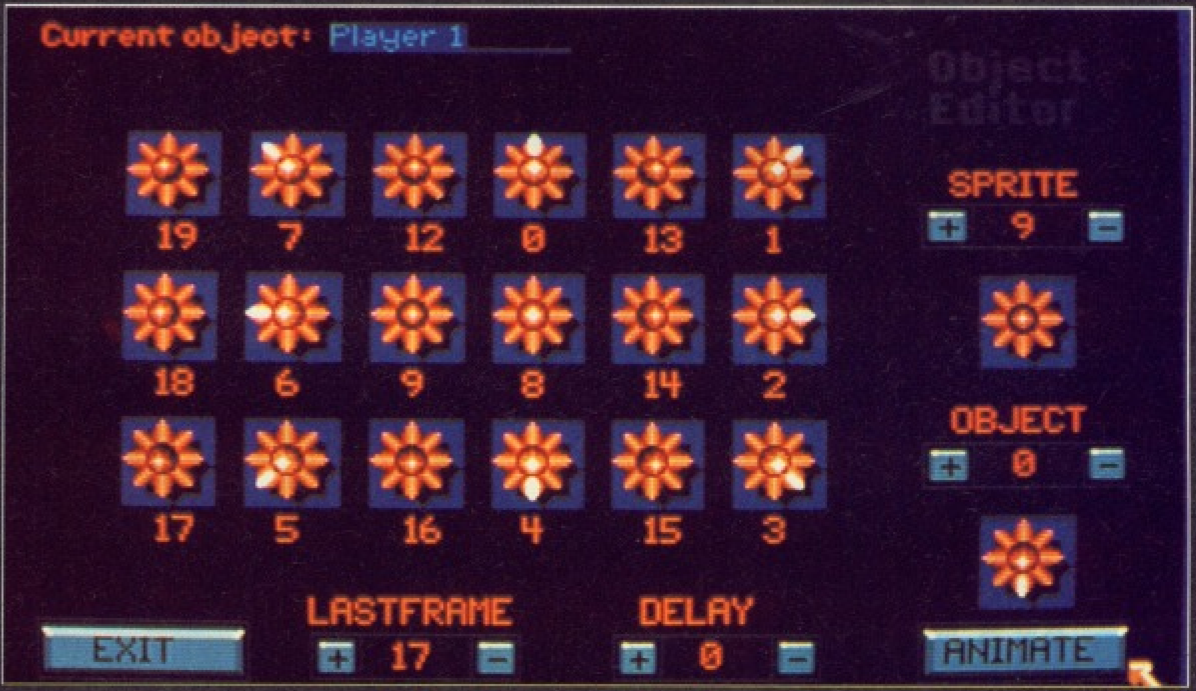


■ **Building the Number 4 sprite in the editor. The three-digit counter at the top left of the gamescreen was cunningly assembled from a sequence of ten different sprites – the digits '0' to '9' – grouped together as an enemy object and copied twice to give three ten-digit objects. The three enemy object counters were then animated at appropriate different speeds and placed in position on the background as static enemy objects to give a digital readout that gives all the appearance of decrementing in real time.**

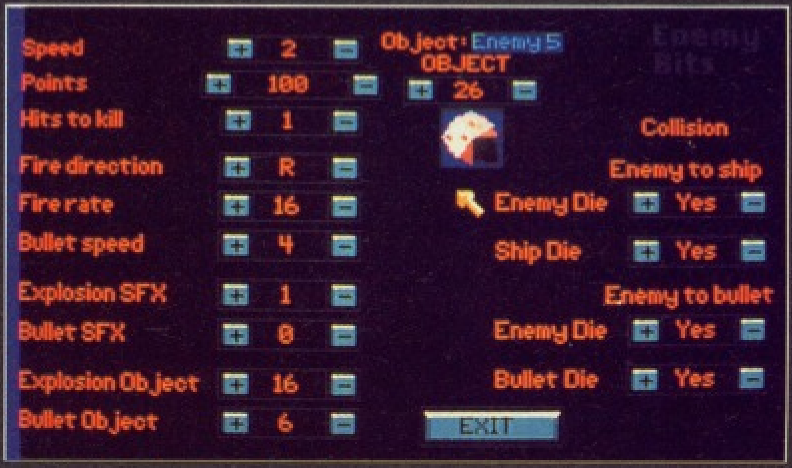
■ **Enemy objects, or aliens as far as the player is concerned, can be linked together by assigning the same flight path to them, thus creating a wave of follow-me aliens like these taken from *Slap 'n' Tickle.* Shuffle the objects closer together and composite sprites like the end-of-level dragons in *Space Harrier* may easily be created.**







■ **During play, a white highlight cycles round the 'petals' of the player's daisy. Close examination of the *Psycho Blast* Player One Object in *SEUCK* reveals that the animation sequence for the cycling white petal uses eighteen animation frames (0-17), only eight of which cycle the white petal: intermediate frames move a highlight on the dome of the daisy, adding to the effect. An impressive and apparently complicated animation has been built up from simple building blocks in the sprite editor: the basic daisy has been drawn, copied lots of times and then the copies titivated slightly to produce the final eighteen frames of animation.**



■ **On this screen, the attributes of the enemy objects can be edited, ensuring that characteristics like speed and sound are appropriate.**

package, and suddenly things began to evolve. "I needed someone to write a game in it to find all the pitfalls. I began to get the feedback I needed when Jon started on the project," Richard explains. Jon was on the phone to Richard almost daily, with suggestions for tweaks to make the software more competent and more user-friendly.

At the same time, musician Richard Joseph was working on sounds for the three games Jon was writing as well as building a library of samples to accompany the finished package. Leinfellner happily took musical suggestions on board as well, and as a result the final *SEUCK* will come with three sound directories, each containing 25 files, and you can now load in any IFF sound sample. Richard created all the vocal effects himself, and everything else was collected from a tape library at Pinewood. "I hope that people will organise themselves," he explains, "and start collecting their own sounds, swapping sample disks and so on."

Three example games accompany the kit: *Blood 'n' Bullets, Slap 'n' Tickle*, and *Psycho Blast. SEUCK* is completely mouse and joystick driven, and while the temptation may be to dive straight in and start knocking up a game, to get the most out of the package you'll need to give the manual a close read and plan your game before starting work. Lateral thinking is the key to producing good *SEUCK* software.

SEUCK is a versatile utility, capable of producing games that are much more than vertically-scrolling shoot-em-ups (as the example game *Psycho Blast* reveals) providing you understand fully how the package works and can think laterally. It would be quite possible to do a *Paperboy*-style game, so long as you remembered to make the paper a bullet and had the letterbox as an enemy with a rattling noise as the explosion when the enemy takes a hit. The best way to start, according to Jon Hare, is to load in one of the example games, play for a while, then start taking it to pieces in *SEUCK*, meddling with the parameters. Experiment to your heart's content. You'll soon get a feel for the possibilities...

SEUCK will cost around £29.95 and contain three disks: the Master Editor, which is the keydisk; the Sound Disk which contains the sample libraries; and a copyable disk containing all the files needed to run a stand-alone game design.

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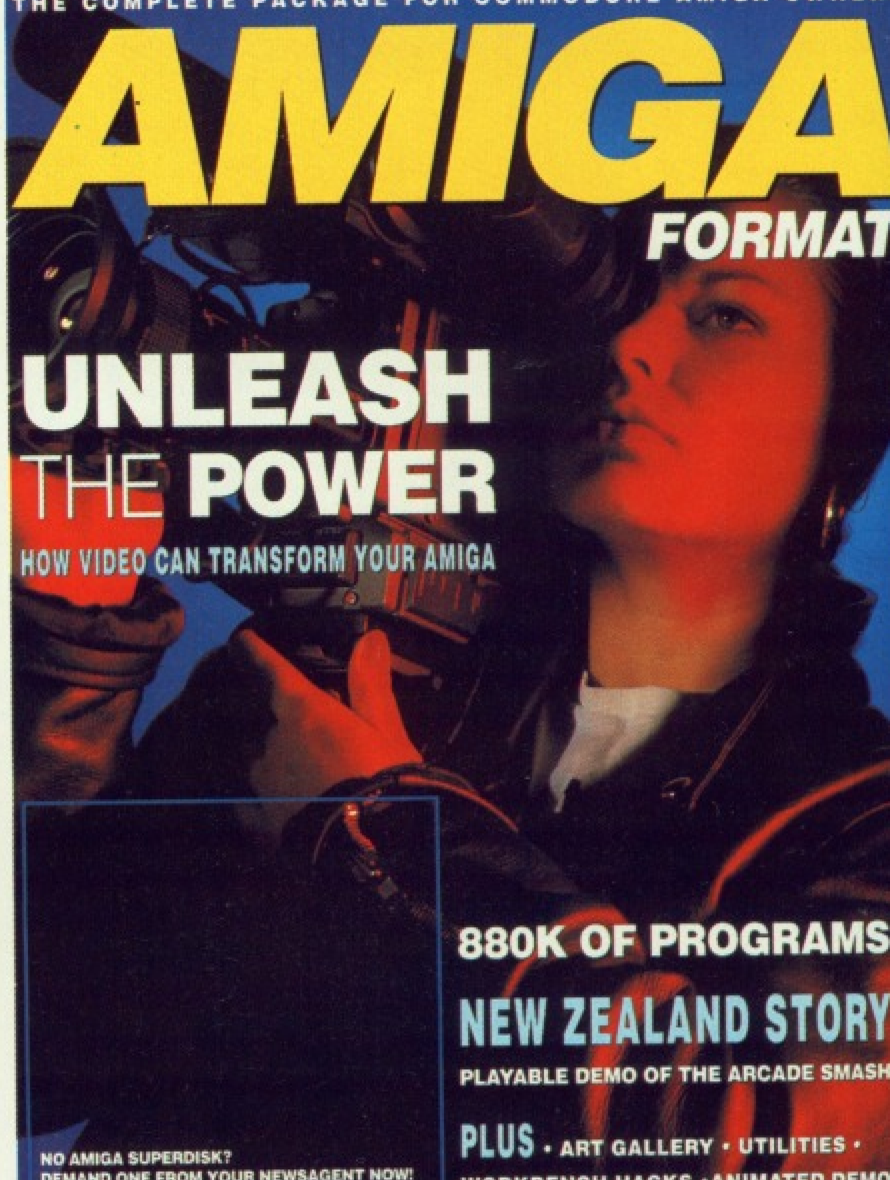
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FUTURESOUND 500

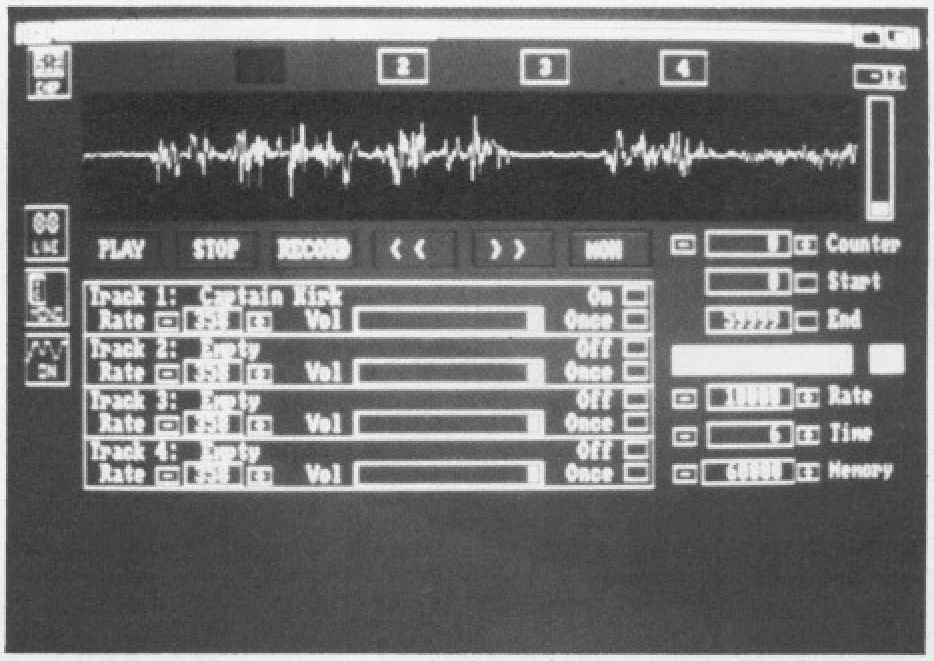
Listen up! RACHEL DECKARD goes for the phones and jacks into the best Amiga sound sampler around.

FutureSound provides everything you need to get started. For eighty quid you get a hardware unit with left and right RCA phono jack inputs, 3.5mm mic input and recording level control slider; a disk containing the main controller software program, pre-recorded sound sampled examples and routines in "C" and BASIC showing you how to use the sound samples in your own programs; a 44-page manual covering all the package's features; and a registration card. What you don't get is the leads to connect your sound source to FutureSound, so that'll set you back approximately £3 more.

DOCTORING THE MOUSE

Getting started couldn't be simpler. You connect the hardware unit to the parallel port on the Amiga, hook up your Walkman or CD player to the phono socket or sockets (depending on whether you want mono or stereo samples) and load up the sampler software.

Once the software's running, you control everything with the mouse, just clicking on the function you want to activate. With the software you can listen to any incoming sounds, record and play back a sample, alter the rate of playback/record, select mono or stereo recording, switch the high-pass filter on or off, monitor the incoming sound's signal (allows you to adjust to just the right recording level), magnify the sound sample's graph, select one of the four possible Amiga sound channels, select either chip or fast RAM (if you've got extra RAM you can have bigger samples), edit your sample using standard cut and paste commands, and load and save your samples.



■ The Futuresound 500 software in action: this is what the sample looks like.

SOUND IT OUT

So you think you know your stuff, eh? Well here is a run-down of the tech-specs of Futuresound 500.

• FutureSound is an 8-bit sound sampler, utilising the Texas Instruments TI 548 high-speed analogue-to-digital convertor.

• FutureSound is capable of recording samples at a maximum rate of 42,118, samples per second in mono. Unfortunately, the Amiga can only output a sampled sound at a rate of 28,000 samples per second.

• The 3.5mm mic input is designed to be used in-conjunction with a low-impedance microphone (200-800 ohms), and the phono inputs are able to take a maximum of 2.5 volts peak to peak.

• FutureSound can handle two types of file format: straight IFF (one-shot or 3 Octave) or JukeBox style.

• All disk file operations use the popular ARP (AmigaDOS Replacement Project) file requester system.

SOUNDS ALL RIGHT TO US

FutureSound is a sound sampler's delight. From the sturdy hardware to the efficient software, everything you need is on hand. As far as the hardware's concerned, we haven't seen anything better on the market. We tested it out with other sound sampling software and discovered it worked better than the original hardware every time! Noise disruption is kept to a minimum, and the on-board recording-level control is a real solid gold bonus.

As far as software is concerned, FutureSound provides most of the facilities you could wish from this type of package, with no frills whatsoever. Although its front-end looks primitive, this just translates into every function being easily accessible and instantly executed. We've used better sampling software before, but if this bothers you too much you'll probably be able to use your old sampling software with FutureSound's hardware: thus having the best of both worlds.

The manual is an easy read, although it may confuse the complete novice at first. Bad marks for not including an index, but this can be forgiven in the light of it being only 44 pages long.

In conclusion, we can recommend FutureSound without any hesitation to anybody wanting to experience Amiga sampled-sound making at first hand. This is the best sound sampler package on the Amiga, and although the software is rather primitive, the hardware is first-class. You'll have a great deal of fun (and more than a touch of frustration) along the way, and you'll end up with results which can be used in your own programs, in other sound creation or composition packages, or saved to disk, reserved for the next time you need to manufacture a hit record!

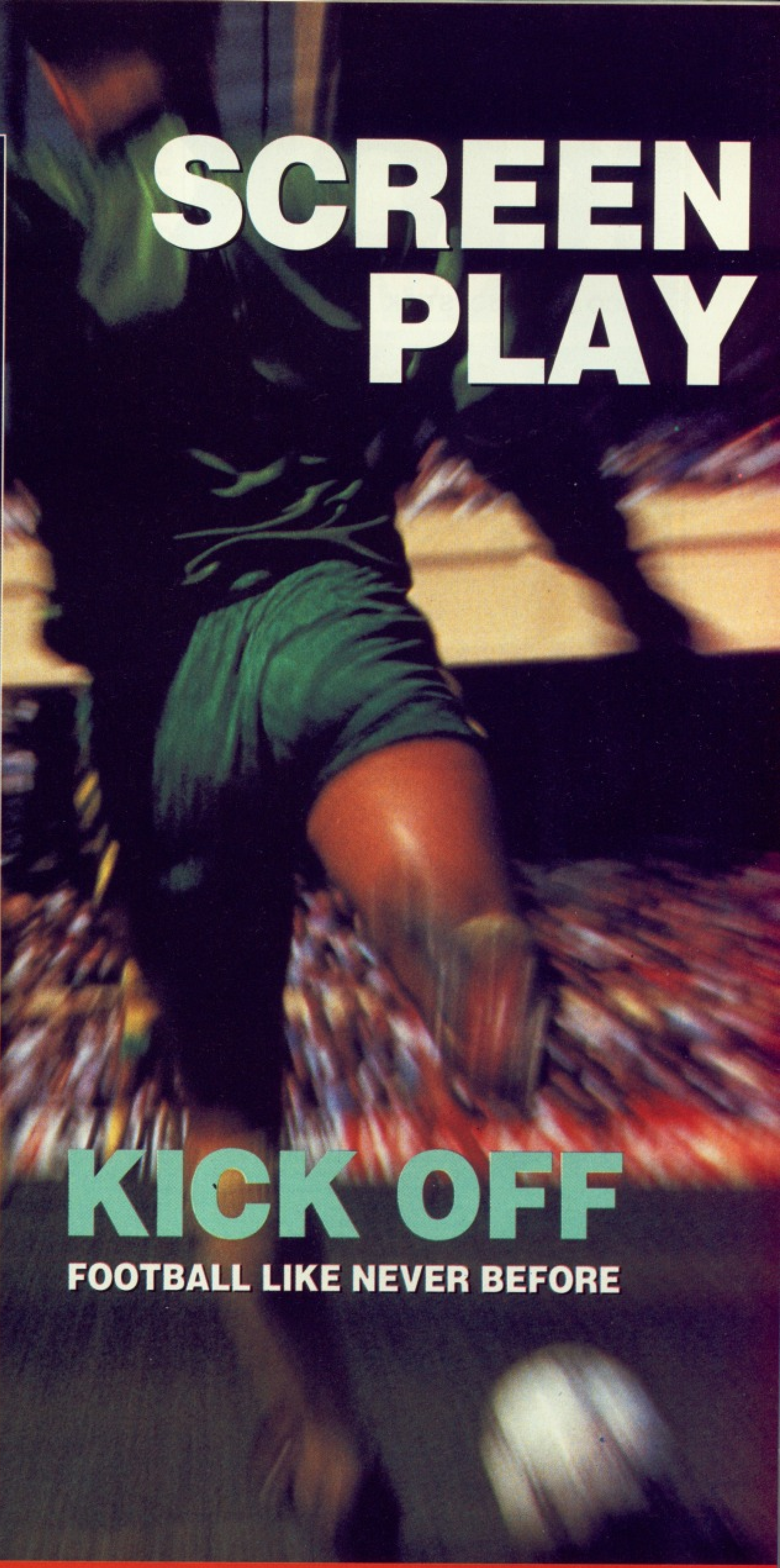
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SOUND SENSE

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SCREEN PLAY



Welcome to Screen Play, the most authoritative games review section in any computer magazine. Every month we'll keep you bang up-to-date with the Amiga games scene.

Why is it the definitive guide to Amiga gaming? Well, the magazine is staffed by one of the most experienced teams in games reviewing. Every game is played by at least TWO people before a conclusion is discussed and decided. We won't judge a game on the strength of any number of demos, screenshots, or other versions. Youll be buying the games, youll be playing them, so we want to make sure that you can buy in confidence.

THE RATINGS EXPLAINED

GRAPHICS
Good graphics are an important part of any game: if the power is there, it should be used to the full. Both still and moving graphics are under scrutiny, but graphics alone do not a great game make...

SOUND
With stereo capabilities the last thing you want to hear are Spectrumesque beeps, right? Title tunes and effects add atmosphere to a game and good sound can greatly increase enjoyment of a game.

INTELLECT
How much real thought do you have to put in to play the game? Just because a game's mindless doesn't mean it's bad, but a game with a high Intellect rating tells you immediately you'll have to think hard to gain maximum enjoyment.

ADDICTION
How easy is a game to pick up and play? How much sheer fun will you get from it? Will you keep coming back? Important questions that are answered when you check the Addiction rating.

OVERALL
A percentage mark that takes into account all the above ratings, plus all the added extras like price, packaging and documentation.

THE TEAM
Andy Smith, who was with ACE right from Issue One, is a 'twelve-hours-a-day' games fan and one of life's natural gamesplayers. He loves any type of game, be it a shoot-em-up, strategy game, arcade adventure...
Bob Wade started reviewing with Personal Computer Games and has worked for Zzap!64, Amstrad Action and ACE. There's no-one with a better idea of what makes a good game.

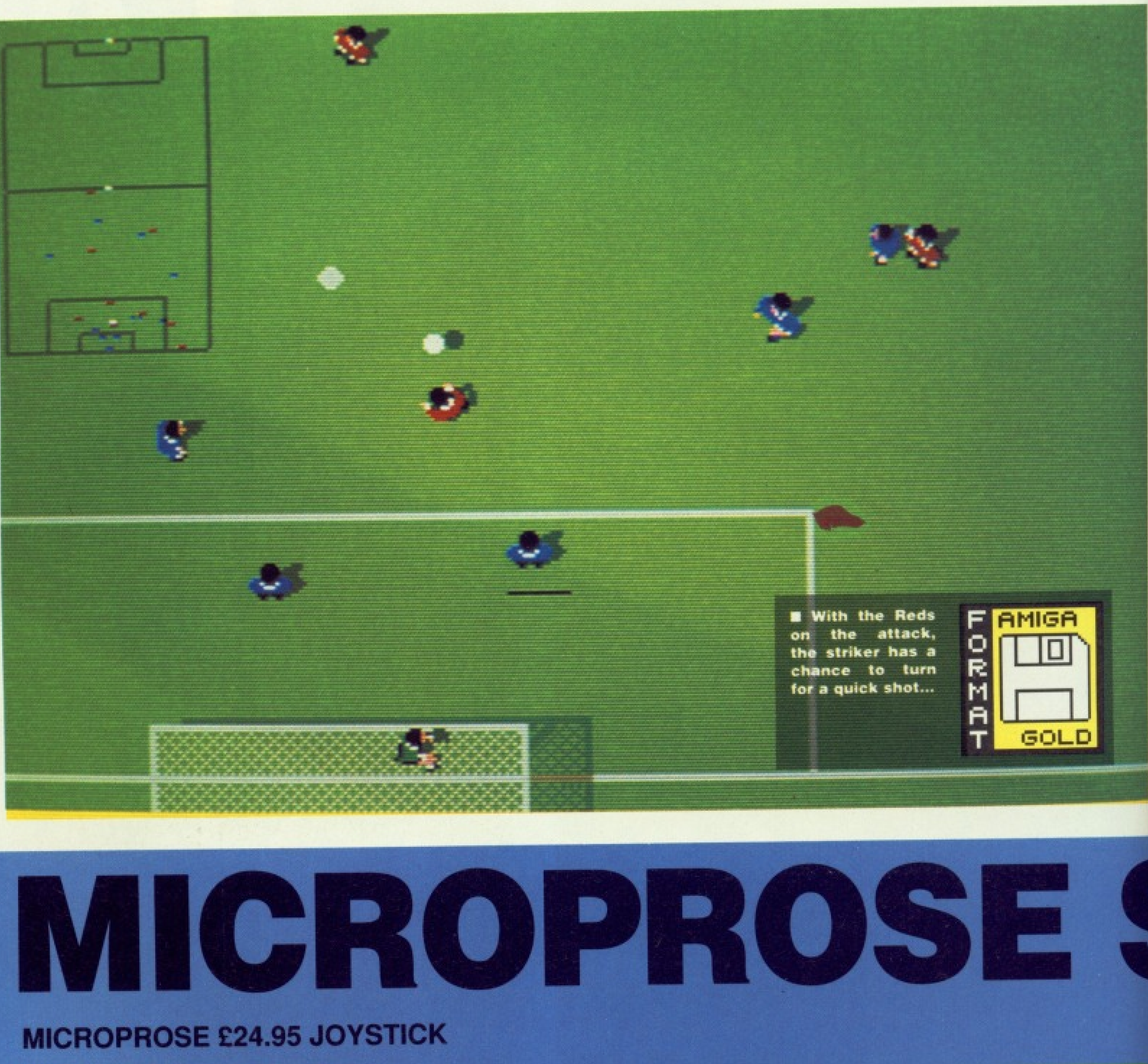
KICK OFF

FOOTBALL LIKE NEVER BEFORE

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KICK OFF

ANCO £19.95 JOYSTICK



■ With the Reds on the attack, the striker has a chance to turn for a quick shot...

AMIGA FORMAT GOLD

MICROPROSE SOCCER

MICROPROSE £24.95 JOYSTICK

It's a funny old game, Brian. Months without a footie sim and then two arrive at once. None of that management nonsense here either: just charging around a pitch tackling, dribbling, shooting, saving and scoring.

Two varieties of the game are included: outdoor (British style, the more familiar kind) and indoor six-a-side (US style, a faster game on a smaller pitch). The pitch is viewed from above and scrolls in all directions, with goals situated at top and bottom of the play area.

You can choose to take part in several types of tournament: these range from the full-blown World Cup Finals, via a league or a two-player friendly fixture to an individual challenge tournament in which the player attempts to beat progressively harder teams. These competitions remain the same for both types of soccer, with two or more players able to take part in all but the challenge.

During the game you control a single player, and switching between team members can be



■ **Goalmouth action in *Microprose Soccer*: the keeper has the ball.**

Mention the name Anco, and the chances are mental images of scantily-clad poker-playing women will pop into the average games-player's head. This stereotype is not entirely fair – because Anco have released some great titles in the past, including *Karting Grand Prix* – but perhaps *Kick Off* will go some way towards changing Anco's image in the public eye. It's the first in what promises to be a strong range of products coming up over the next few months.

As you might guess, *Kick Off* is a football game. One or two players can compete, each controlling a full eleven-a-side team during games of between ten and a full ninety minutes of real time. All the action is viewed from above and you control the player in the best position to get at the ball: the character under control is highlighted by a black line. The game has been designed so that players automatically dribble the ball whenever they come into contact with it. Shots or passes to another player simply require a tap on the fire button, and the longer the button is held down, the higher the ball will go.

Because of the dribbling it's tough to get used to turning with the ball, so for the first match or two you'll end up kicking the ball half-way up the pitch in completely the wrong direction! You can hold the fire button down before making contact to trap the ball and turn in any direction you wish, then release the button to kick the ball. This makes things easier, but by taking advantage of the 'practice' option you'll be in much better shape to play against someone who's trying to beat you.



■ ...and the corner-kick is given: can the Reds put it away this time?

GRAPHICS AND SOUND

Terrific scrolling and animation compliment the gameplay, and the sound effects (whistles, crowd reactions and ball being kicked or bouncing off the goalpost) add lots of atmosphere. Triffic, Brian!



■ ...but the goalkeeper manages to push the ball past the post...

Once confident with the controls, you can choose to play a single game or to compete in the league (the players and the computer can have their skill level adjusted, from International class right down to Sunday League).

There are eight teams in the league (so up to eight people can compete, if each selects a different team) and each team has a different playing style and skill level. For example, West Germany tend to tackle heavily (not always to their own advantage) while Russia are extremely fast and very skillful. A coin is tossed at the start of the match to determine whether you play up the pitch (screen) or down. Then you select a line-up, 4-2-4 for attacking play, 5-3-2 for sweepers and so on, and dive straight into the match.

Anco have really delivered the goods here. *Kick Off* is the best football game on the Amiga to date and should be in any games-player's library, whether he or she is a fan of real football or not.

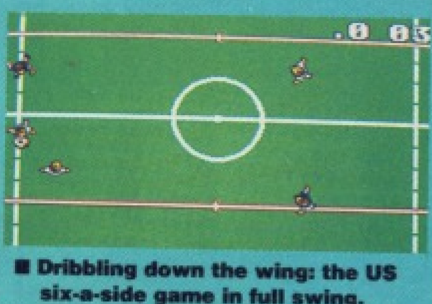
Andy Smith

GRAPHICS	8
SOUND	5
INTELLECT	3
ADDICTION	8
OVERALL	91%

SOCCER

GRAPHICS AND SOUND

Big cartoony graphics, but they move sluggishly and are not very well animated. The scrolling is not as good as it should be either. In this instance 'large and stripy' loses out to 'small and detailed'. There's a lot more in the way of music, jingles and effects than in *Kick Off*, all of which are good with the exception of a dire tackling effect.



■ Dribbling down the wing: the US six-a-side game in full swing.

manual or automatic. Possession is gained by running into a loose ball or tackling the player with the ball. The ball sticks to the ends of a player's boots until he is tackled or kicks it, so dribbling is easy.

Kicks are split into three types: volleys, chips and banana shots. The banana shots can be quite spectacular, but they bend far more than a real ball would. The computer opponents range from kickabout-in-the-park cannon fodder to the I-cost-£3million-and-you're-five-nil-down superteams.

One of the annoying features of *Microprose Soccer* is that you can run straight through the man in possession without actually tackling him. To tackle, the fire button has to be pressed. It's not a serious pain, but this and several other factors make it lose out to *Kick Off* in the 'best footie game' stakes. The larger graphics merely reduce the on-screen playing area and don't improve the gameplay at all. The action is much slower as well, losing the adrenalin rush of non-stop action.

This is not a bad game, but it just is not as good as *Kick Off*. It has more features though: the indoor league is of particular interest, and the different types of competition add interest too.

Bob Wade

GRAPHICS	6
SOUND	6
INTELLECT	3
ADDICTION	6
OVERALL	67%

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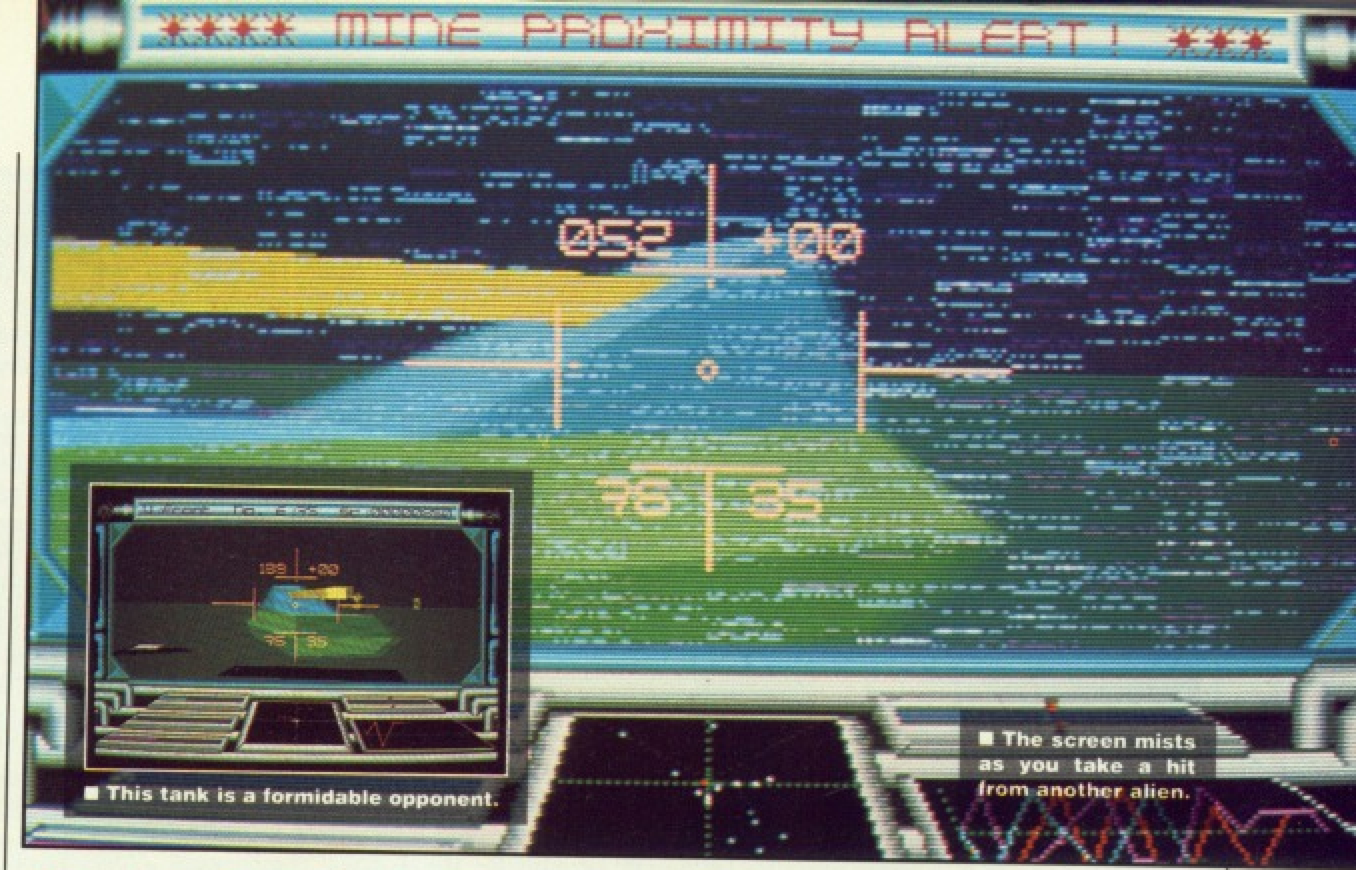
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The Voyager II space probe, launched in 1977 on an endless journey through the universe, is picked up by the evil alien Roxiz fleet and the information on board guides a Roxiz invasion force to our solar system. They prepare to invade Earth, using the ten moons of Saturn as a temporary base. One Luke Snayles, a prisoner returning from a 50-year term of solitary Investigative Exploration, decides that only he can save earth, by destroying the Roxiz forces single handed, one moon at a time…

Starting at the moon of Janus, the player takes on the role of Luke and has 80 aliens per moon to blast in this *3D Battlezone*-like tank shoot-em-up. You view the action from the cockpit and are armed with a front-firing gun and a couple of atomic bombs.

Extra bombs and widgets, including side-view cameras and a device that allows the tank to sprout wings and fly around the landscape (handy for destroying flying aliens) can be picked up. With progress through the moons the enemy get tougher and smarter. For example, Squashers which appear from Moon Two onwards can only be destroyed by dropping an atomic bomb in their vicinity: unfortunately, there are always more Squashers than you have bombs, so a quick tactical analysis is called for.



■ This tank is a formidable opponent.

■ The screen mists as you take a hit from another alien.

VOYAGER

OCEAN £19.99 JOYSTICK OR KEYBOARD

GRAPHICS	8
SOUND	4
INTELLECT	3
ADDICTION	7
OVERALL	79%

As a 3D shoot-em-up it's one of the best around. The filled-3D graphics are slightly jerky, but are at least fast. The title music is far more interesting than the sparse sound effects. Although lasting interest fades because the task tends to get repetitive, the subtler challenge of working out how best to deal with the tougher enemies remains, and with 800 to blast you won't finish in a hurry.

Andy Smith

VINDICATORS

DOMARK/TENGEN £19.99 JOYSTICK OR KEYBOARD

Domark launch the new Tengen label, on which most major Atari coin-op conversions will appear for three years, with this space-tank shoot-em-up for one or two players.

Controlling an SR 88 Strategic Battle Tank, the player must eliminate each one of 14 multi-level space stations, sent to conquer earth by the evil alien Tangent Empire, by finding and destroying the control centre at the heart of each station. To reach the next level, the player must locate and trundle over a key.

Each level is defended with turrets and roaming tanks, but to make your job slightly easier a number of star symbols lying on the floor can be collected and traded for goodies such as increased shot power, speed and shield strength. Unfortunately, the tank is very fuel-hungry so you'll also have to collect fuel canisters. After bombing a control centre the player enters a bonus room littered with goodies to collect.

Good coin-ops don't always make good computer games but, happily, *Vindicators* does. The 'viewed from almost directly above' perspective works well and the sprites and backgrounds are great, with the explosions worthy of particular note. Sound is not so impressive: sampled tunes are reasonable but effects are weak. *Vindicators* is an out-of-the-ordinary shoot-em-up, very addictive and playable, especially when played with a friend. This is a good start for the Tengen label: let's hope everything that follows in the future is just as good.

Andy Smith

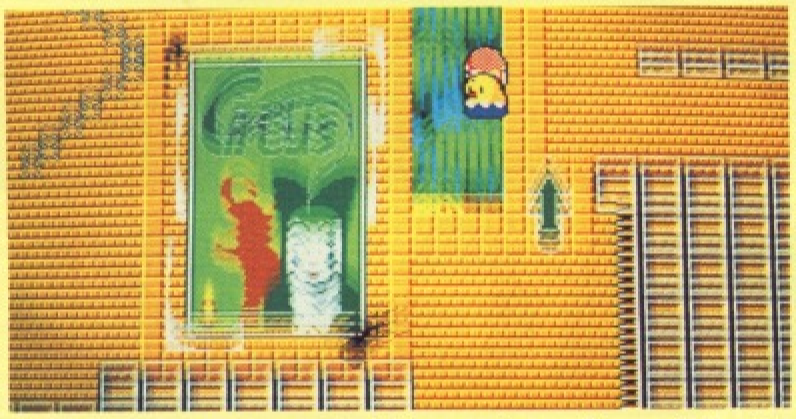


■ With two players' tanks on the roll, there's some fuel up for grabs.

GRAPHICS	8
SOUND	4
INTELLECT	3
ADDICTION	7
OVERALL	81%



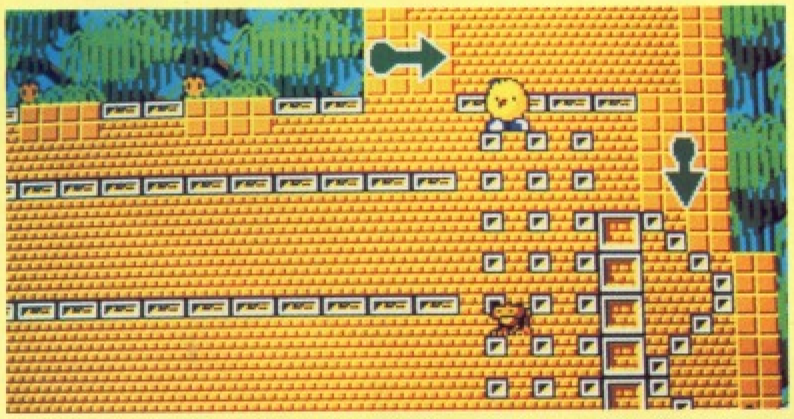
■ Dispose of that floating teddy bear quickly, because if you jump into that balloon on the right he could pose you a few problems.



■ Now you have taken to the balloon and are airborne, follow the green arrows which will lead you towards your caged friend.



■ Still airborne and following the arrows. You've manged to change your bow and arrow for bombs, which spells trouble for nasties.



■ Once you've ditched the balloon it's just a couple more hops before you can rescue your friend and progress to the next level.

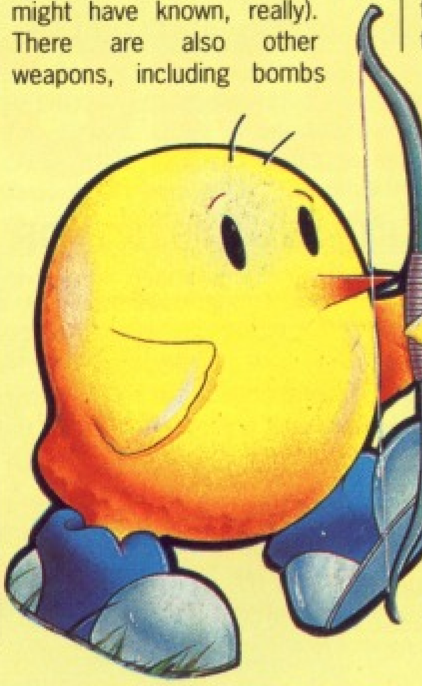
The Japanese have some wacky ideas when it comes to coin-ops: take *Bubble Bobble*, the tale of two bubble-blowing brontosauruses that went down a storm in the arcades and converted very successfully to the computer.

Another very wacky idea is to have a little yellow Kiwi, complete with white and blue shoes, running around rescuing chums that have been captured and locked in cages by a bad ol' walrus. Still, it worked in the arcades and now, thanks to Ocean, every Amiga owner has the chance to play this enchanting game at home.

In case you hadn't guessed already, you control the yellow bundle of fluff in this oh-so-cutesy platform game that's not a million miles away from *Bubble Bobble* and *Super Mario Bros.* The action's all viewed in two dimensions, and there are five levels to play through, each level made up of four sub-levels with the fourth sub-level guarded by an end-of-level nasty that needs destroying before you can progress.

Again as if you'd not guessed, the sub-levels are guarded by a bunch of... well, you can't really call them nasties, because they appear to be teddy bears and snails! But contact with them will cause you to lose one of an initial three lives. For self-defence you're armed with a small bow, from which to fire arrows at the baddies (a bow and arrow? Well, you might have known, really). There are also other weapons, including bombs



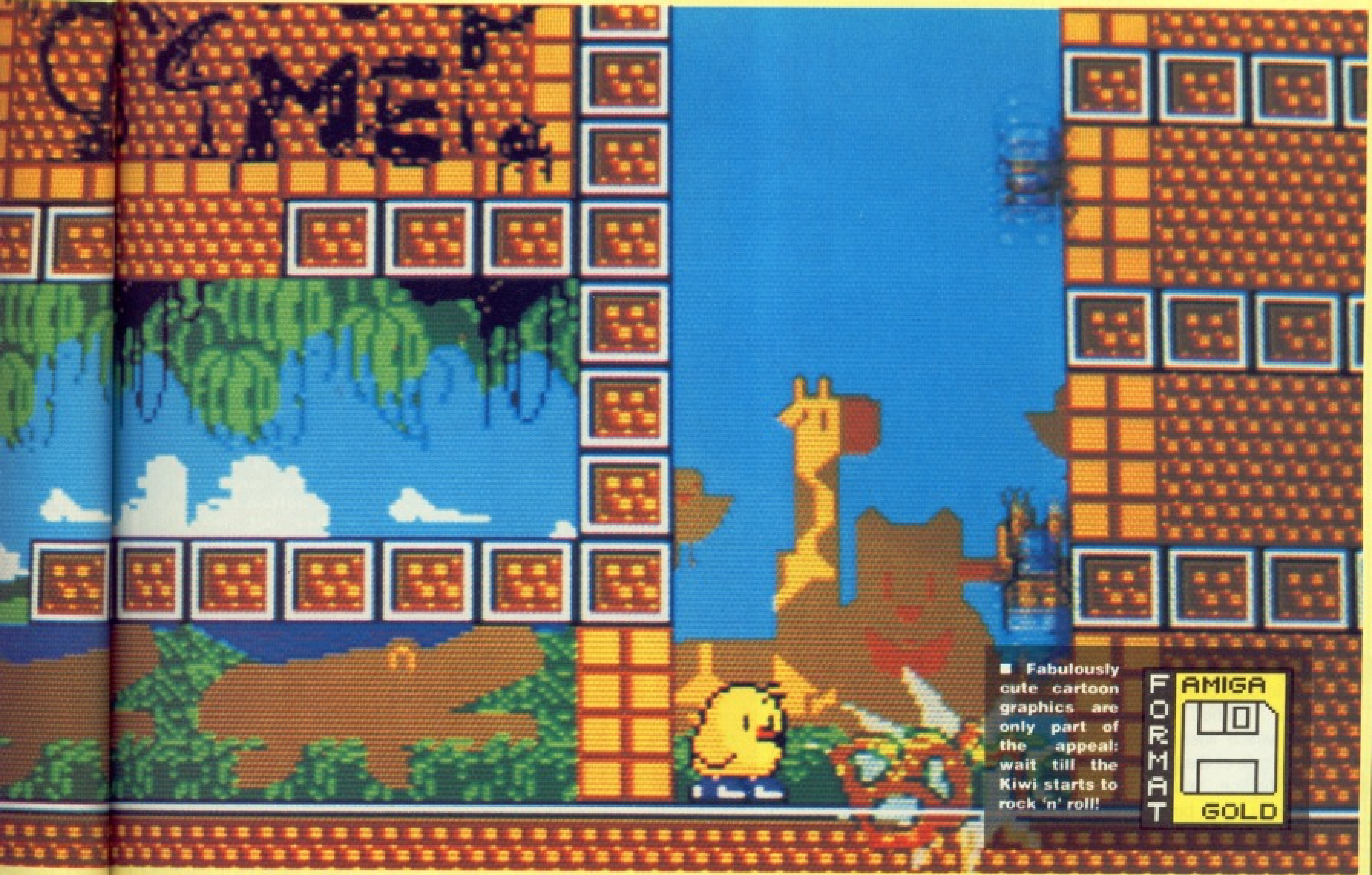


and lasers, to be obtained by shooting certain baddies: most baddies simply turn into juicy pieces of fruit, which are collected for bonus points. Some baddies fire back, though, so keep on your toes to dodge their shots.

As well as the baddies, there are objects in the scenery that can kill you, such as spikes on the floor that must be jumped over. The levels (and sub-levels) get progressively harder and puzzles start creeping in: for example, on sub-level three your chum is caged on the right side of the level but there's no obvious way of getting to him. Until you realise that with careful timing you can shoot the teddy bears that float around without popping the balloons they float on, then hop onto an empty balloon and guide it over

THE NEW ZE

OCEAN £24.99 JOYSTICK



■ Fabulously cute cartoon graphics are only part of the appeal: wait till the Kiwi starts to rock 'n' roll!

AMIGA FORMAT GOLD

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the top. But the bears can pop your balloon and tumble you towards the ground, so beware!

Another problem is the time limit: hang around on a screen too long and a big 'hurry up!' notice comes on. Ignore this warning, and a small Time Devil appears and prongs you with his trident, thus removing one of your lives.

New Zealand Story is incredibly cute, and at first you'll think you're far too old to be playing such a game. But you're not. This is an incredibly addictive game, and the difficulty tuning has been set just right, increasing your determination to survive to the end of each and every level. Ocean have taken a great coin-op and produced a wonderfully good conversion, which you will no doubt find yourself booting up time and again.



Andy Smith

GRAPHICS	9
SOUND	8
INTELLECT	3
ADDICTION	9
OVERALL	94%



■ Mind that anemone-like monster as you snorkel your way through.

GRAPHICS AND SOUND

Take big, colourful cartoon sprites that are beautifully drawn and wonderfully animated, add backgrounds that are highly colourful and then jolly tunes that play throughout, and you end up with a great-looking and great-sounding game that happens to be immensely playable too.



EALAND STORY

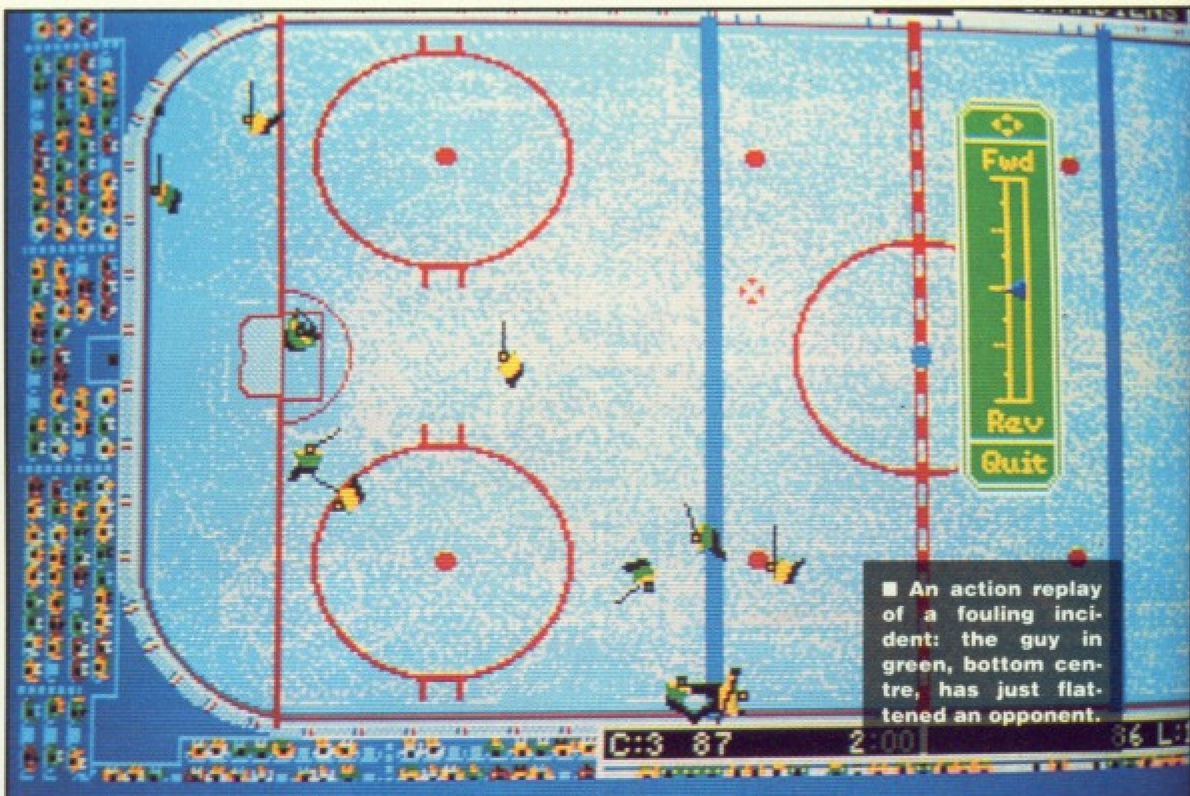
Pride of Canada, biggest name in the world of ice hockey, but still virtually unknown in the UK: that's Wayne Gretzky. In North America he has achieved the sporting god status reserved for Ian Botham and Daley Thompson over here.

Like recent soccer games, it's viewed from overhead. The pitch is about two screens wide and scrolls horizontally as the puck moves from end to end. While not visually stunning, this display is functional, because you can always tell exactly what's going on.

As with most American sports games, this one loves statistics. There are whole screens full of information and options, which are useful on the coaching side because you can alter everything from individual players' attributes to the 'lines' (best described as preset team line-ups for particular situations: attacking, defending, taking penalties and so on). You can opt to control a player, coach, both or neither. The coach decides which lines to play: the strategic side of the action.

On the ice, you control one player at a time but can switch between any of them except for the goalie. All the rules of ice hockey must be obeyed, so there are penalties for charging, holding, tripping, cross-checking, elbowing, high-sticking, hooking, roughing, slashing, spearing and anything else ending in '-ing'. You can also have fights and instant replays to add even more realism.

Options allow skill levels and playing time to be altered: a match against the professionals is the ultimate challenge, and no easy proposition. Starting at the most basic level, the game's very easy to play, but has hidden depths of strategy. To begin with, you can hit the ice and simply skate around enjoying the game,



■ An action replay of a fouling incident: the guy in green, bottom centre, has just flattened an opponent.

GRETZKY HOCKEY

BETHESDA SOFTWORKS £24.99 MOUSE OR JOYSTICK

but later on there is more satisfaction to be derived from it through gaining experience of switching lines and learning tactics.

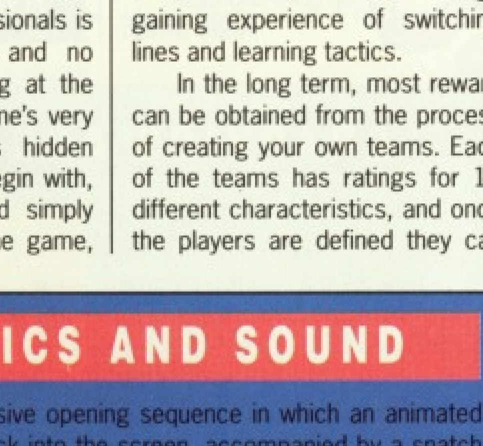
In the long term, most reward can be obtained from the process of creating your own teams. Each of the teams has ratings for 11 different characteristics, and once the players are defined they can be arranged into lines of your own choosing. As well as changing lines, the players can be made to operate certain pre-arranged plays to try to gain the upper hand. All in all, this wealth of detail adds depth to an already good sports simulation, making it one of the better ones currently available.

Bob Wade

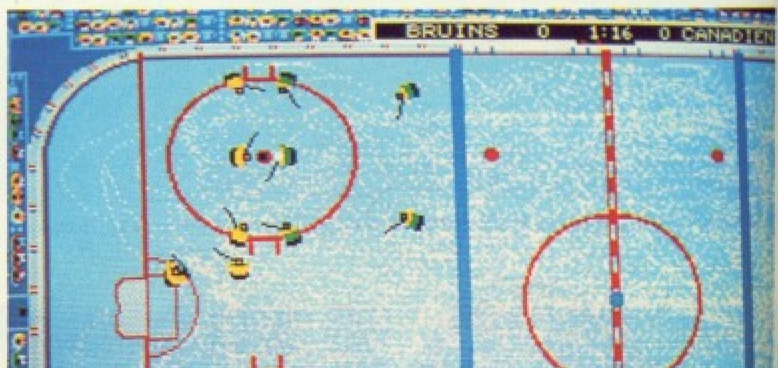
GRAPHICS	4
SOUND	3
INTELLECT	4
ADDICTION	6
OVERALL	70%

GRAPHICS AND SOUND

There is a very impressive opening sequence in which an animated skater smashes the puck into the screen, accompanied by a snatch of pleasant music. After that, sound is limited to crowd noise and spot effects. The rather basic game graphics are well supported by nice presentation screens for the referee's decisions and for fights, but these are still not outstandingly fine.



■ The referee indicates a foul for holding.



■ The goalie 'freezes' the puck, so two men square up for a face-off.

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■ When you're on a Journey, even the most unpromising rock can open up new opportunities. If the party should wish to enter the door, the option keyword must be selected in the bottom left-hand corner.

JOURNEY

INFOCOM/ACTIVISION £29.99 MOUSE AND/OR KEYBOARD

Death, pestilence, famine and other nasty things have stricken the once-fair lands and it seems that only Asterix the wizard can save the populace from complete despair.

Only problem is, Asterix opted out of the rat race some time ago. He now lives alone atop a mountain and he's none too keen to receive visitors, so the first task in this keyword-driven adventure is to guide a party of (up to five) characters to Asterix and ask his help.

The screen is divided into three main sections: the top left is given over to small pictures of the various locations, the top right is where all text messages and general location descriptions appear and the bottom part of the screen is where you select various keywords that advance the adventure. The keywords offered for selection depend on the characters in the party, their current situation (they might be in the middle of a battle, or preparing to camp for the night, for instance) and the location. So playing the game is very easy and consists of simply reading the messages and deciding which actions to take.

Once you've found your way to Asterix's abode, the adventure really starts. The quest involves searching through the kingdoms of Dwarves, Elves, Nymphs and other creatures both fair and foul for seven sacred amulets that will enable the wizard to fight the Dread Lord. Progress is generally rapid if a little common sense is applied, but if you are completely stuck the 'musings' option at the end of the game hints at actions that you should have taken.

Altogether, *Journey* is good fun. The keyword system is simple and easy to use and the puzzles are all very logical and intriguing. It obviously won't appeal to hardened shoot-em-up fans, but anyone who likes games that require thought input will be rewarded with many hours of enjoyment.

Andy Smith

GRAPHICS AND SOUND

The small pictures are adequate, but not superb. Still, there are plenty of them and they help to add to the atmosphere created mainly by the text. As for sound: forget it (on a basic A500 anyway). The lack of sound does little to detract from the game however, so don't let it put you off.



■ Picture a monster confrontation...

GRAPHICS	7
SOUND	N/A
INTELLECT	8
ADDICTION	5
OVERALL	82%

MAYDAY SQUAD

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International terrorists are a nasty bunch, especially when they take control of foreign embassies and threaten to blow them up. Luckily for civilisation, the Mayday Squad is here.

As the Squad's commander, you must select a team of three (each member specialises in a certain area, such as explosives or communications) who explore the floors of the embassy, shooting terrorists before they score too many hits on the team. The aim is to rescue the ambassador's daughter and free the prisoners before guiding them safely to the roof for collection by a helicopter: all within a time limit.

Each room is well drawn from a first-person perspective and the graphics are of very high quality, although repetitive. Sound effects, such as machine-gun fire and explosions, are extremely good. All in all, with plenty of baddies to blast and some clever puzzles to solve, it's enjoyable and exciting for a while: but it is ultimately a simple 'search and shoot' game, lacking in variety and lasting challenge despite the advantage of changeable skill levels.

Andy Smith



■ The Mayday Squad wastes a couple of beret-clad guerillas before planting some high explosive.

GRAPHICS	7
SOUND	8
INTELLECT	3
ADDICTION	8
OVERALL	67%

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■ We control the cyclic, we control the collective: you are now entering the 'Copter Gunship zone. TADS has acquired a target, but what is it?

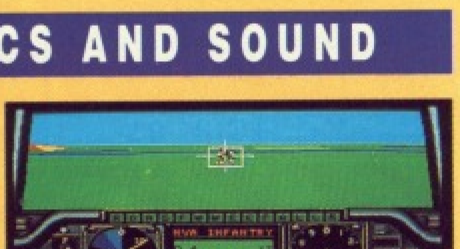
GUNSHIP

MICROPROSE £24.95 JOYSTICK AND KEYBOARD



Selecting a payload: as much weaponry as your AH 64A can handle.

GRAPHICS AND SOUND



Preparing to attack an infantry squad.

Sound is disappointing: the attack helicopter sounds more like a diesel bus struggling up a one-in-four than the real thing, and explosions aren't outstanding. The graphics are fast and smooth, though, and are certainly very colourful. Take the plunge, set everything on 'realistic' and volunteer for some of the more hazardous missions, and you'll find that *Gunship* is action-packed enough to keep you coming back for months.

If 'cyclic' and 'collective' mean absolutely nothing, then the chances are you've never pitted your wits against a helicopter flight sim. In a real helicopter the pilot uses two joysticks: the cyclic, which controls the pitch and roll of the aircraft, and the collective, which controls the angle of attack of the rotor blades, so governing the lift.

In *Gunship* – a simulation of the American AH 64A Apache helicopter – the player uses a joystick to control the cyclic and the keyboard to control the collective. There are a number of missions to attempt, set in various parts of the world and with different divisions of the American air force. As with most games of this nature, diving straight into missions is not a good idea until you've put in some flight practice and can handle the 'copter confidently despite the weather. Fortunately you can swing things slightly in your favour while training: for example, by making crash-landings impossible or minimising cross-winds.

Once you're competent, it's time to attempt a mission with a difficulty level equal to your ability. You've a whole range of weapons to choose from, including guided anti-tank Hellfire missiles, FFAR rockets and a 30mm chain gun. The cockpit is equipped with all the latest gadgetry including TADS (Target Acquisition and Designation System) and radar and infra-red warnings and jammers.

Missions usually feature both primary and secondary objectives, so if your 'copter isn't shot to pieces on the first, you can go for the second. The Apache is lightly armoured, so can take a little flak without crashing into the bush, but it's still vulnerable, so it's always advisable to land at base for repairs if things start to look bad. Should you complete a mission successfully, the chances are you'll be awarded a medal and maybe promoted.

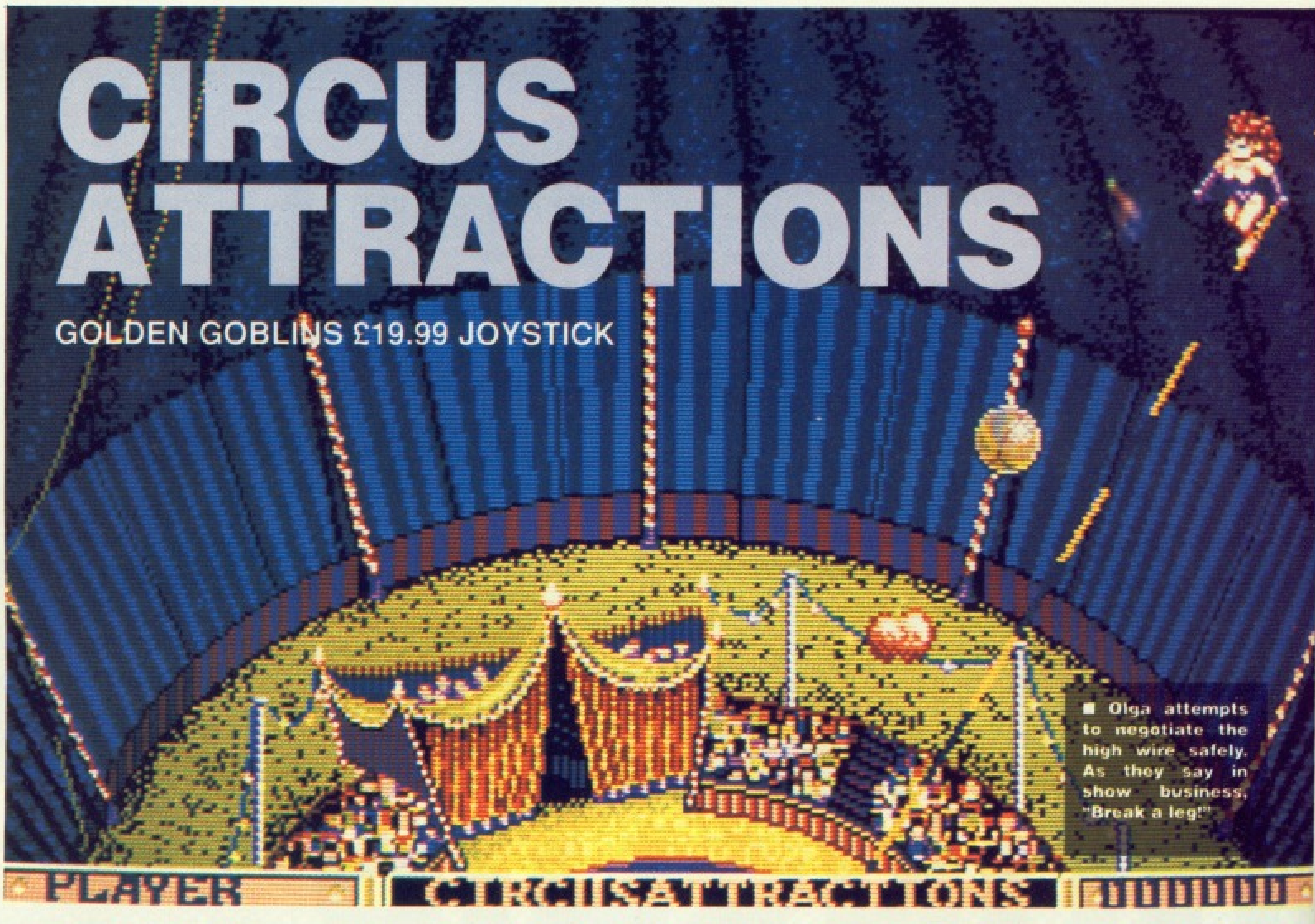
Gunship has plenty going for it: the missions are numerous and varied and it's high on lasting interest. The politics are dodgy, but if you're not worried about zapping gooks you'll find the game entertaining, challenging and packed with action.

Andy Smith

GRAPHICS	7
SOUND	3
INTELLECT	6
ADDICTION	5
OVERALL	87%

CIRCUS ATTRACTIONS

GOLDEN GOBLINS £19.99 JOYSTICK



■ Olga attempts to negotiate the high wire safely. As they say in show business, "Break a leg!"

Following *Grand Monster Slam*, a multi-eventer set on another world, comes Golden Goblins' latest offering, a multi-eventer set in the Big Top.

There are five events in which you and a friend can participate. The first is trampolining, in which you have a couple of minutes to bounce around performing forward and backward somersaults in order to impress the crowd and so score points. In two-player mode, each player controls a character on his own trampoline, but when one player starts a somersault the other follows.

Having had a surfeit of this bouncing, you can turn a leg to tightrope walking. The task here is to help Olga balance during her diagonal walk across the screen by moving the joystick to the left and right. If things are going well it's possible to attempt tricks such as scissor kicks, handstands and backwards somersaults, each completed trick earning points.

Survive the high wire and it's time to try your hand at juggling, with up to six tennis balls plus a balancing ball on the foot and the occasional Indian club. As if that's not enough, a midget clown riding a motorbike occasionally attempts to run you down, so it's a good idea to jump in the air at the appropriate time and so avoid him!

The penultimate trick is quite likely to be the most dangerous: knife throwing. Line the cross-hairs up on the wheel, to which is securely fastened a nervous young lady, then take knives from the obligatory scantily-clad assistant and lob them at the wheel, trying to miss the girl if at all possible. Curiously, the assistant is none too friendly and will sometimes try to hand you a stick of dynamite, which explodes if you accept it, thus ending the game.

The final trick involves three clowns and two see-saws. The player must guide each clown in turn as they jump from one see-saw to the other, avoiding a ghost that appears between them, and collecting any bonus points by catching various obstacles that appear above the clowns' heads.

The events all require practice to achieve a good degree of competence, and some events are definitely tougher to master than others. None of the events has outstanding gameplay, so *Circus Attractions* comes across as a pot pourri of mediocre games that tend to frustrate more than entertain. The fun improves if you play with two, but not greatly.

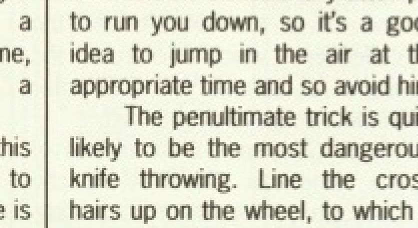
Andy Smith



■ **A careless knife throw elicits a barrage of abuse from the victim.**

GRAPHICS AND SOUND

Graphics throughout are good. The colourful backdrops, good perspective and smooth animation all work well together making it very attractive visually. Sound is not so hot: the barrel-organ tunes that accompany each event are all well executed and add atmosphere, but they're far too repetitive and are likely to become annoying sooner rather than later.



GRAPHICS	8
SOUND	2
INTELLECT	2
ADDICTION	5
OVERALL	**56%**

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Targhan

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Targhan is probably the most stunning game you'll ever play.

Targhan is an adventure-action game with more than 120 landscapes and 40 different characters. The game is playable on either keyboard or joystick.

The game offers digitised sound and outstanding graphics.

It will be released on Amiga, Atari and PC (EGA, VGA and CGA) by the end of May. The game will run on both colour and mono screens.

Look for reviews in Commodore User, Popular, The One, C&VG, Ace, ZAP, The Games Machine and Amiga User International soon!

Silmarils

To enter our competition please send your warranty cards of TARGHAN and complete the following:

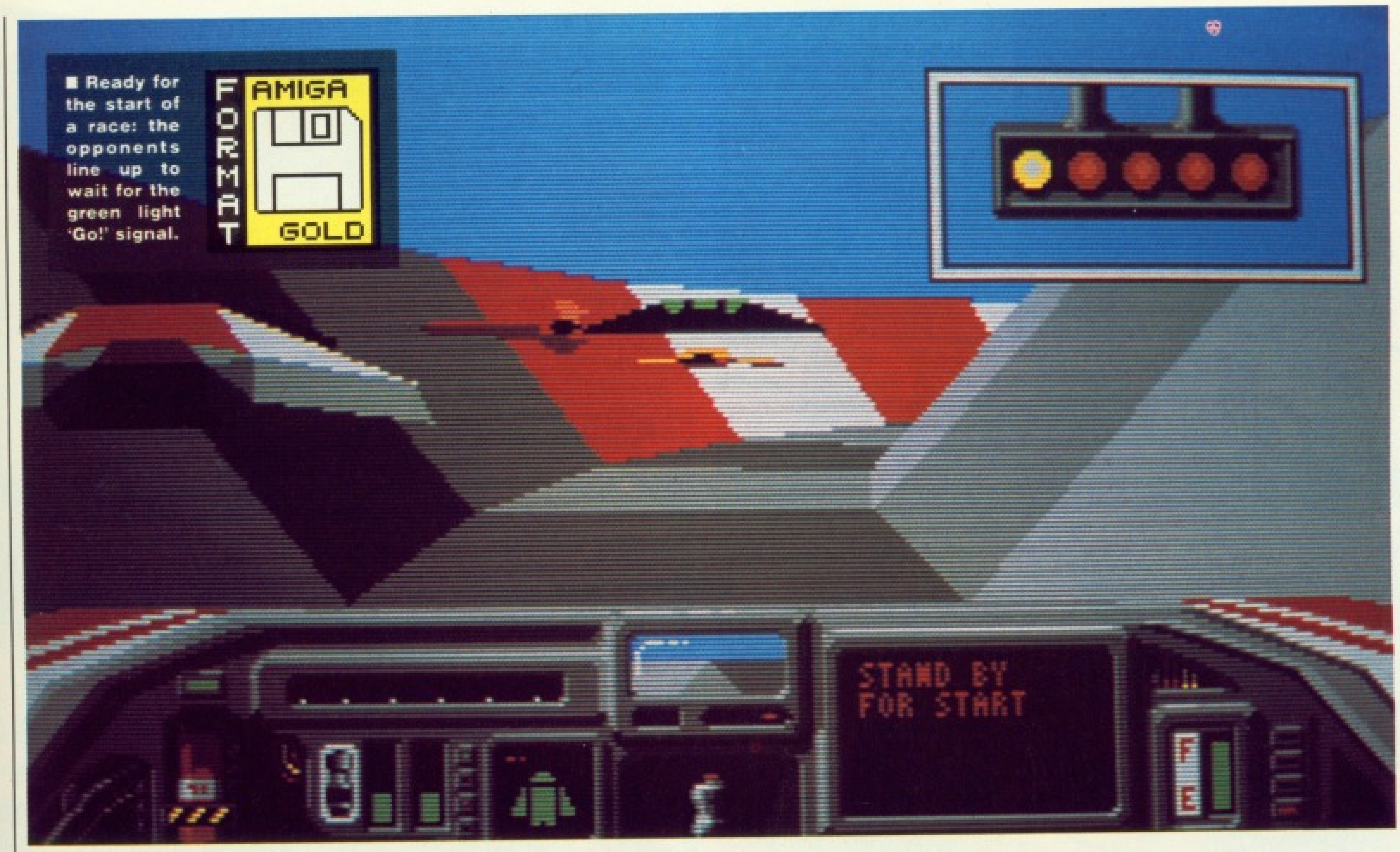
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Gainstar



■ Ready for the start of a race: the opponents line up to wait for the green light 'Go!' signal.

AMIGA FORMAT GOLD

POWERDROME

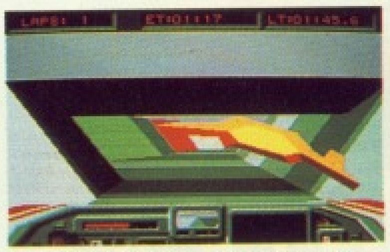
ELECTRONIC ARTS £24.99 MOUSE OR JOYSTICK

Not many games have been written that fully exploit mouse control instead of the joystick: *Virus* and *Ferrari Formula One* are two that spring to mind. This is another one for the collection, in which the advanced control mechanism is matched by the futuristic nature of the game.



Imagine racing a jet fighter along courses that dive underground, twist and turn wildly, and even have moving walls. You are now imagining this game. It's a futuristic sport that is far more demanding than anything on two or four wheels, or any flight sim. Not only are you required to battle the tortuous courses but you must also take on computer opponents, or another player via a datalink, at the same time.

There are seven tracks, the simplest of which is a basic oval: all the rest are much more complicated. You must fly around the tracks as quickly as possible, trying to avoid the walls and other ships. This is made easier to start with by using a centring mechanism which attracts the ship back to the middle of the track. It has adjustable strength that can be gradually turned down as you learn the intricacies of the courses and how best to fly them.



■ In hot pursuit of a opponent.

Each track is on a planet with its own atmosphere (methane, oxygen, ammonia or sulphur) so the ship must be fitted with the appropriate filters. This is complicated during races by rain or other precipitations that require particle filters to prevent engine failure. The ship also has other adjustable features, such as the fuel type, aerofoils and brakes, that affect its performance.

There are four other racers in different ships and contact with them or the track walls damages the ship. Too many accidents will affect the handling or instruments. In order to undergo repairs or be refuelled, the ship has to be retired to the pit which takes up valuable time, so careful flying is just as important as speed.



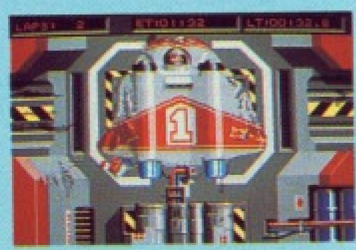
■ Selecting a new craft to race.

After a few days' practice this is a fantastically absorbing game. Initially, the aids to flying help a lot, but once you are good enough to get rid of them it is a unique racing experience. Not only is it worth spending the time on to begin with: it will remain a classic for years to come.

Bob Wade

GRAPHICS AND SOUND

Astoundingly fast solid 3D graphics give a marvellous feeling of movement. This is complemented by excellent presentation and demo modes that make delightful viewing and listening. The pit graphics are detailed and believable. Engine noise and mechanical sound effects are all 'on the money' too.

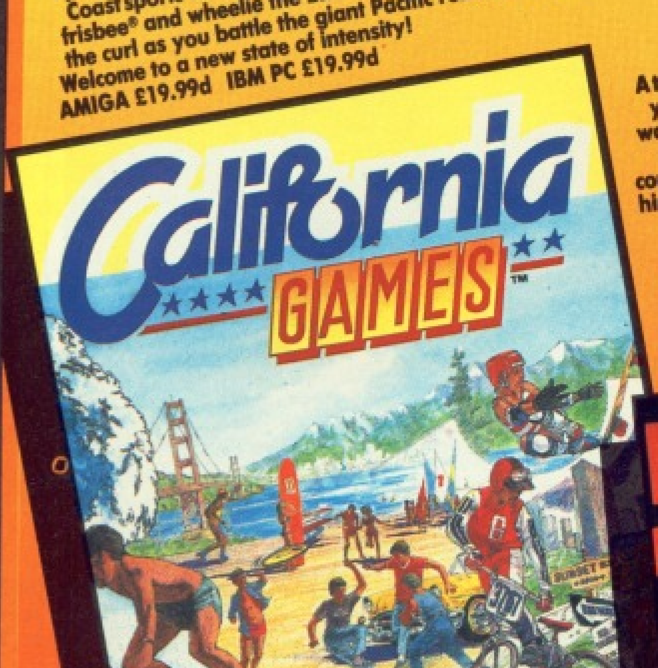


■ The ship retired to the pits.

GRAPHICS	9
SOUND	6
INTELLECT	3
ADDICTION	9
OVERALL	92%

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RAMPAGE

ACTIVISION £24.99 JOYSTICK AND/OR KEYBOARD

George, Lizzie and Ralph aren't the sort of names you'd imagine monsters bearing a remarkable resemblance to King Kong, Godzilla and the Wolfman would have, but they're determined to smash their way through as many of America's finest cities as they possibly can.

Converted from the Bally Midway coin-op, the game can handle up to three simultaneous players – each controlling a monster – and when you're not fighting amongst yourselves the idea is to destroy a set number of buildings by climbing up and punching whacking great holes in them.



■ Framed against the skyline, our monstrous heroes prepare for demolition.



■ George the Gorilla is looking for trouble...

Obviously the citizens wish to defend themselves, so the army has been called in and doesn't mind shooting or lobbing sticks of dynamite at you one little bit. Every hit you take reduces your stamina – pictured in the form of a horizontal bar at the top of the screen – and once it reaches zero the game's over. To prevent this happening simply reach out and chomp as many people as you can, which revitalises you no end.

Rampage is a fun game to play. The animation is fine and so are the backgrounds, if a little basic, and the sound effects are reasonably good. The game itself is simple, addictive and, when three of you are playing at once, quite pleasingly manic: but don't expect it to keep you playing for months on end, 'cos it won't.

Andy Smith

GRAPHICS	6
SOUND	5
INTELLECT	2
ADDICTION	7
OVERALL	72%

SKWEEK

LORICIELS £19.99 JOYSTICK OR KEYS

This French furball is doing its best to become cute phenomenon of the year, following other wacky favourites like Gribbly, Thing, Pogo and Bubble and Bobble. His (for it is a he and not a Skweezette) whole motivation in life is to turn blue tiles pink by running over them. From this simplest of concepts are constructed 99 fun levels.

The tiles are laid out across vertically-scrolling levels packed with other features, the most bothersome among which are the creatures that appear from portal tiles and are fatal when run into.

Tiles that are covered in ice, let Skweek travel only one way, explode or dissolve can also cause problems for the unwary. Fortunately, you can shoot the creatures and pick up useful bonuses along the way which include increased firepower, more speed, and extra lives and shields.

On the whole, the game is thoroughly enjoyable because it's so easy to play and yet has lots of variety in the levels. As you would expect from a cutesy game the graphics are very colourful, featuring sprites that are detailed and nicely animated. Sound consists of a repetitive, wibbly tune played throughout and cheery in-game effects. The fun might not last for long, but it's great while it does.

Bob Wade

GRAPHICS	7
SOUND	6
INTELLECT	2
ADDICTION	7
OVERALL	78%



■ Skweek, the cutesy furball centre-stage, runs into a deadly spider.



■ This is Skweek himself, rising star of the computer world.

AFRICAN RAIDERS

TOMAHAWK/COKTEL VISION £19.99 JOYSTICK

Strap yourself in and take part in the African stages of the Paris-Dakar rally, courtesy of Parisian software house Tomahawk.

There are five stages to the game, the idea being to make it from Point A to Point B in the shortest possible time, any which way you can. There's a roadway to follow, should you so wish, marked out with old barrels, but it's twisting and the other racers tend to stick to it so your times will be slow. To be in with anything like a chance of winning you have to venture cross-country, which is where the problems start.

The desert is full of hazards: barrels from last year's race, herds of resting camels and soft sand. Sand multiplies problems by slowing you right down, but fortunately you can simply switch from two- to four-wheel drive and crossing the sand becomes much easier, though still slower than two-wheel drive on firm ground.

To help you navigate while you're off the track there's a digital compass on the dashboard. There's also a fuel gauge and an indicator (updated by transmissions from a pursuit helicopter) giving you a grid reference, which enables you to follow and plot the course on the map supplied with the game. All the instruments are vital to successful completion of the stage, but they can get broken if you smash your car up too much, and it's terribly difficult to navigate with no instruments: so careful driving is a prime requisite.

On the approach to the finishing post, only if you join and follow the track to the line will your position be logged. Then the car is repaired and you can set out on the next stage.

The perspective used is good, the game overall is very fast and it boasts good gameplay: but it's not the most exciting of race games and offers little new apart from the map-reading aspect and a couple of new hazards. Still, it's well worth a look.

Andy Smith

GRAPHICS	8
SOUND	7
INTELLECT	3
ADDICTION	6
OVERALL	68%



■ Waiting with others for the chequered flag at the start of a stage.

GRAPHICS AND SOUND

As you might expect from the French, the graphics are of a high standard. Collision detection seems a little iffy, but not disastrously so, and the undulating desert, the hazards and the backgrounds are all good. Sound is of a similarly high quality, helping to make this an extremely enjoyable, if not outstanding, car racing game.


■ Flying over rough ground past the camels.

CLASSIC INVADERS

SUPERNOVA SOFTWARE £14.95 JOYSTICK OR KEYBOARD

There's nothing new we could tell you about *Space Invaders* so, unfortunately for Supernova, that only leaves the conclusion. The Invaders in this version move excrutiatingly slowly, even when there's only one left on screen, the collision detection is dodgy (shoot through your barrier and you take out either a whole bullet's width, or absolutely nothing no matter how many times you fire) and the sound is best left turned off. Bringing a classic like this to the Amiga is not such a dumb idea: after all it has, and always will have, a place in the hearts of most computer owners. But to produce a version like this and expect people to buy it is shameful. If you really want to play *Space Invaders*, there are many better PD versions which will entertain you rather than make you kick yourself and reach straight for the rubbish bin.

Instead of buying this, you could grab yourself a copy of the PD game *Amoeba Invaders*, given away free on the cover of ST/Amiga Format Issue 5, or from Fish Disk Number 120.

Andy Smith


■ *Looks like a classic Invaders...*

GRAPHICS	1
SOUND	1
INTELLECT	1
ADDICTION	1
OVERALL	09%

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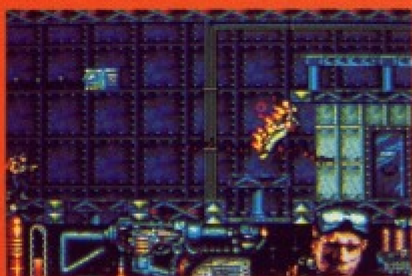
DINAMIC/ELECTRONIC ARTS £24.95 JOYSTICK



■ The first part, skimming across the ocean in an inflatable dinghy.

GRAPHICS AND SOUND

The animation's good and the moody, atmospheric backgrounds are good too. Sound effects are nothing special, however. What it gains in the graphics and sound departments does not compensate for the lack of good gameplay.



■ Part Two: inside the submarine.

Put on your flippers and snorkel and make ready with the flamethrower and harpoon gun: because it's aquatic death and destruction time.

The U5544 nuclear submarine must be destroyed and it appears you're just the person for the job: if you can get there. Like Dinamic's earlier game *Army Moves*, it's a two-parter, access to the second part being denied until you complete the first part and receive an access code.

The first part is also sub-divided into smaller sections. At the start of the game you're on the surface of a very choppy ocean in an inflatable dinghy, trying to jump a line of mines that are little more than a boat's length apart. Then you confront enemy commandos on jet skis: here's where the harpoon gun comes in, because if these guys shoot or crash into you, one of six lives is lost.

Get past them and it's time to dive in and take on some deadly sharks and enemy frogmen. These are all small fry compared to the third stage, though, where you clamber inside a bathyscaphe to take on first an octopus and then a large eel-like monster.

The second part is a side-on viewed platform game set inside the sub, during which you must place a bomb in the reactor and escape. Unfortunately, it's not easy to move around the sub without the passes that officers carry, so you must shoot and rob them.

This game differs from *Army Moves* in the scenario only. *Navy Moves* too has extremely difficult gameplay, to the point where it spoils your enjoyment rather than increasing it. It's incredibly tough and for the first part at least, the game is simple, uninspired stuff.

Andy Smith

GRAPHICS	8
SOUND	5
INTELLECT	2
ADDICTION	5
OVERALL	53%

SPHERICAL

RAINBOW ARTS £19.99 JOYSTICK

Remember *Solomon's Key?* If you do, this is a lot like it: if you don't, well, the aim of this 'influenced' game is to ensure that a ball runs down to a certain part of the screen by building blocks over holes in another set of blocks that already cover the screen.

There are ghosts to avoid, magic potions to collect and some 200 different levels to complete. There's even a simultaneous two-player mode which you may find useful because on a lot of the screens you have very little time to think about where the ball will roll once it starts or whether it will fall down the wrong holes. The laws of gravity are obeyed here, so if the ball lands on the floor there's no way of making it roll uphill to the exit again (unless you are lucky enough to discover a gravitation switch, which will simply reverse the gravity).



■ A wizard's problem: the ball must reach the bottom-left, but how?

The control is awkward, but the game's fun to play and although it's unoriginal it's quite a mental exercise. With 200 screens to complete it's liable to keep you busy for some while.

Andy Smith

GRAPHICS	7
SOUND	5
INTELLECT	7
ADDICTION	6
OVERALL	64%

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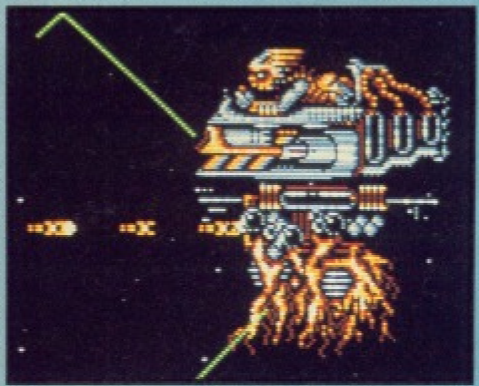
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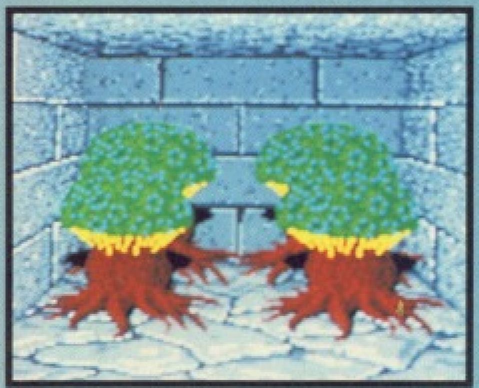
We proudly present our Top Ten of the best ever games: so good that there's eleven...



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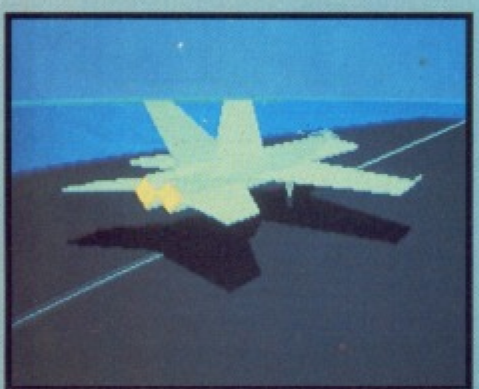
DENARIS



DUNGEON MASTER



ELITE



F-18 INTERCEPTOR

BALANCE OF POWER 1990
MINDSCAPE £24.99

The current zenith of strategy games and probably the only game ever to be reviewed in the New York Times. It's more than just a game, it's a thorough simulation of global politics between the USA and USSR. The attention to detail is extraordinary. After playing this, you will probably know more about world politics than most politicians do.

TIPS
Striking a balance between survival and scoring points is the whole art of the game. Factors to bear in mind are spheres of influence, precedence and relative importance level. The advisors are a good general guide, but the hard decisions are all yours.

CHALLENGE
The Multi-Polar Level is immensely compex and a match for anyone.

DENARIS
RAINBOW ARTS £19.99

Horizontally-scrolling shoot-em-ups don't come any better than this piece of Germanic genius, which features some of the best blasting graphics ever seen and gameplay to suit the most demanding of players. Scores over its rivals in the variety and deviousness of the alien attack patterns. Satisfyingly, a death and the loss of all additional weapons does not necessarily herald the end of the game: it is still possible to battle through, although much tougher. The end-of-level guardians are varied and tricky, the hardest being the enormous spaceship. There are enough levels, too, to keep even the most hardened blaster happy.

TIPS
Static attack patterns mean most waves can be wiped out easily by correct positioning. Beware the weapons capsule with the yellow block in: it removes the nose-cone, leaving the ship vulnerable.

CHALLENGE
Survive through three levels without collecting additional weapons.

DUNGEON MASTER
MIRRORSOFT £29.99

A masterpiece of adventuring and role-playing that first appeared on the ST and is, sadly, only available in a one Meg version. Lead a party of adventurers through fourteen levels of Lord Chaos's dungeons, fighting all manner of vicious nasties and solving some very tricky puzzles in an attempt to rescue your master's Firestaff. Superb graphics and sound effects bring heaps of atmosphere to a thoroughly addictive game that'll have you on the edge of your seat the whole time. Worth buying a memory expansion for...

TIPS
Lure some of the more vicious monsters into doorways and keep the door bashing down on them while you fight.

CHALLENGE
Play the game from the start without mapping it as you go.

ELITE
FIREBIRD £24.95

This classic space trading combat game is still the best of its kind. Starting out with little money in a simple ship, you have eight galaxies to explore. Dogfight with pirates and aliens as you shuttle goods from planet to planet trying to earn money to equip your ship. Whether you choose to operate within the law or outside it is entirely up to you, but whichever path you choose, a dogfight is just around the corner: and the enemy ships take no prisoners! A believable game world, terrific gameplay and as big a task as you'll find anywhere. An absolute must.

TIPS
Type 'SARA' when first prompted for the start-up password, then enter the correct code. During the game press '*' to bring up the hacking screen, and then alter the following bytes:

Byte	Value	Result
18	FF	Absolutely
19	FF	Loadsa
1A	FF	Luvverly
1B	FF	Dosh
9F	10	Mission 1
9F	20	Mission 2

CHALLENGE
Play the game without the help of the above cheats or a docking computer.

F-18 INTERCEPTOR
ELECTRONIC ARTS £24.95

A solid-3D combat flight simulator with the emphasis firmly on combat. There's a host of views, both within and outside the cockpit, and heaps of missions to complete, some of which are very devious indeed. The overall game structure is great and the attention to detail superb. The graphics and sound effects are both tremendous and the frame rate is impressive. Everyone should own at least one combat flight sim and this is still the best.

TIPS
Be careful not to always trust the mission briefings!

CHALLENGE
Experts should be able to complete a mission without using missiles.

HYBRIS
DISCOVERY/GAINSTAR £24.95

Some of the hottest, fastest and most frantic arcade action you'll find outside the arcades. You fly a heavily-armoured spacecraft

through an alien fortress, blasting ground emplacements and any alien attack ships that are foolish enough to appear on the wrong side of your laser cannons. As you progress, you can pick up extra weaponry to help the alien wasting move into top gear.

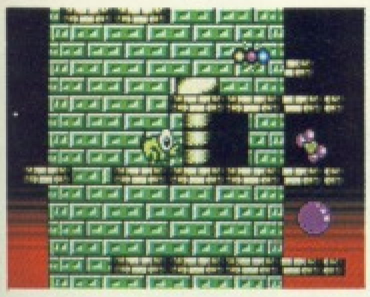
TIPS
Memorise the flight patterns of the different alien attack waves so that you can waste them as soon as they appear. Ground emplacements can have you cornered in no time: if possible, knock them out without the slightest delay.

CHALLENGE
Survive for three levels without destroying the ground installations.

NEBULUS
HEWSON £19.99

So much more than just a platform game! It's a unique concept that tests both the mind and the reflexes. The crucial feature is the setting, in the middle of a sea on a number of towers that revolve as your character moves round them. There are all manner of nasty surprises throughout the game, as you struggle to reach the top of the towers within a time-limit and without tumbling into the water. It's a magnificent concept, superbly executed, instantly addictive and with enough difficult towers to stretch the best.

TIPS
The most important thing to learn is the timing of the appearance of the spinning alien: get in rhythm to save an awful lot of sudden drops. Watch out for areas where being knocked down by the alien is vital to progress.



CHALLENGE
Complete the first three towers without being knocked down once to earn a 100% technique bonus.

POPULOUS
ELECTRONIC ARTS £24.95

A relative newcomer, but with all the essential ingredients needed to ensure instant classic status. You play the part of a divine being overseeing a race of people living on a small world. Unfortunately, there's also another divine being (either the computer or a friend) trying to look after a rival race: because the world is too small for both races, one has to go. And that's where you come in. By helping your tribe to settle, build a civilisation and conquer new ground, you gain the power to invoke a whole gamut of natural disasters upon the opponent's people, thus helping your tribe and increasing your power still further. With a thousand worlds to conquer, *Populous* is destined to keep you playing for months: and you're sure to enjoy every minute.

TIPS
Volcanoing the opposing population in the same spot several times is very effective. Keep building new settlements for your people throughout the game: power, the key to the game, is derived from settling. If they are too comfortable and have lost the inclination to explore, reduce the size of a settlement until it's too large to hold the population: the settlement will then kick someone out to explore and settle new territory.

CHALLENGE
Play three consecutive worlds without using any of your divine powers: no earthquakes, volcanoes, knights, floods, swamps, or any of the other acts of god...

THE SENTINEL
FIREBIRD £19.95

Bizarre and compelling strategy game played over the chequered surface of a planet dominated by the Sentinel. Essentially, you must absorb energy while trying to prevent the Sentinel from absorbing yours. A clear brain and a fast trigger finger are both vital in this original and huge – ten thousand landscapes – game.

TIPS
Remove all the sentries and position yourself right next to the Sentinel (so you can absorb him whenever you wish) then, while he's turning slowly toward you, survey the land and absorb any extra trees and the like. As soon as he starts scanning you, simply absorb him and take his place.

CHALLENGE
A considerable achievement would be to win a landscape without taking out any sentries.

SUPER HANG-ON
ELECTRIC DREAMS £24.99

The best racing game on two wheels, more than a match for any of its four-wheeled rivals. The rolling road looks fantastic, every stage is accompanied by delightful scenery, the roaring engines sound good and the music is excellent. Pacing is perfect: tightening time limits make winning a very difficult proposition. The mouse control is delightful too.

TIPS
Keep your finger on the accelerator and go! Well, OK, you do need to slow down occasionally: but steering into corners early helps.

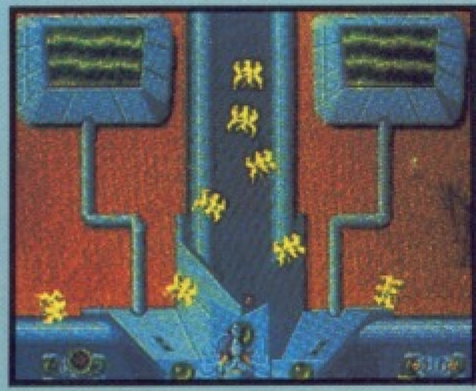
CHALLENGE
Complete the first five-stage course without crashing once.

VIRUS
FIREBIRD £19.95

State-of-the-art 3D graphics and a superb control system are hallmarks of this classic from *Elite* author, David Braben. Although criticised for being too hard to play, with a little practice it's one of the most addictive, challenging and enjoyable shoot-em-ups ever created. Stop the aliens from infecting the beautiful, rolling, patchwork landscape by reducing every one of the many types of enemy craft to glittering clouds of debris. The graphics are stunning, the sound effects are superb and the gameplay is unrivalled.

TIPS
Missiles are precious – use them only to take out attractors and mystery craft. By hovering low over the water you can see the shadows of incoming attackers and their vapour trails. Along with the sound cues, this allows you to manoeuvre and thrust at the right time to gain a height advantage and attack. Take out bombers and seeders first because the landscape bonus can earn valuable extra lives. On later levels, try to refuel just before the pests start warping in: you will not be able to while they are around.

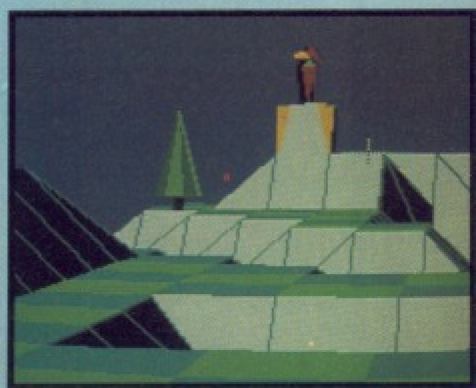
CHALLENGE
Destroy all the scanners on Wave One and then get to Wave Five (the new landscape) flying blind. High-score fans should have a crack at getting to the third landscape and scoring 250,000.



HYBRIS



POPULOUS



THE SENTINEL



SUPER HANG-ON



VIRUS

4 GO MAD ON A COIN-OP



Win US Gold's Gauntlet II coin-op worth over £2,000, plus heaps of US Gold sweatshirts and games.



A dream come true for all arcade fans: your very own coin-op. It's no ordinary coin-op either: it's the smash hit *Gauntlet II*. That's not just one or two player action, but four players blasting and chasing around together. Your friends will love you for it.

As if a two-grand arcade machine wasn't enough, US Gold are also giving away 20 sweatshirts and 20 games as runner-up prizes. Each of the 20 runners-up will get a sweatshirt and a US Gold game of their choice.

Gauntlet II is a classic game that combines hectic blasting action with lots of level exploration and player co-operation. It's a marvellous arcade experience, not to be missed.

To be in with a chance of winning this fantastic machine or one of the 20 other prizes, all you have to do is answer the following three questions, whack the answers on the back of a postcard or stuck-down envelope and send it to: **Gauntlet II Comp, Amiga Format, 4 Queen Street, Bath BA1 1EJ.** The entries should reach us by **August 21st** and **don't forget** to include your **name, address and phone number** on the postcard and add the name of the US Gold game you'd like to receive if you win a runner-up prize.

RULES

Employees of Future Publishing and US Gold are not allowed to enter. The judges' decision is final: no correspondence will be entered into.

QUESTIONS

1. Which of these is one of the four characters in *Gauntlet II?*
a) Bimbo the Bandit
b) Darren the Dull
c) Merlin the Wizard

2. What should you do when touched by the 'IT' monster?
a) See a doctor immediately.
b) Touch another player and pass it on.
c) Touch a 'THAT' monster to get rid of it.

3. What nasty tactic do sorcerers use when attacking you?
a) Shoot magic that freezes you to the spot.
b) Reverse the controls.
c) Go invisible for short periods of time.

REMEMBER to include your name, address and phone number on your entry.

HiSoft BASIC
Compiler

Now BASIC has come of age

HiSoft BASIC is a fully-integrated compiler and editor that makes it beautifully easy to convert all your AmigaBASIC programs into fast-running machine code.

In fact, **HiSoft BASIC** is so simple and quick to use that you will soon find that you no longer need the AmigaBASIC interpreter at all, you can do everything you want with **HiSoft BASIC**.

HiSoft BASIC includes full support of the Amiga, as standard, with extensive window, screen and graphics commands. In the same way as the interpreter, Amiga libraries can also be accessed as if they were built-in statements allowing complete machine access.

HiSoft BASIC includes full MENU support, with event trapping and powerful sprite routines, using the OBJECT keywords.

Compiled programs can execute in their own window(s) or use the CLI window for minimum size. CLI-type programs may be easily written and made resident since they are fully re-entrant.

For larger programs and for those programmers with strong editor preferences we also supply an editor-less compiler for traditional disk-to-disk compilation methods.

HiSoft BASIC is a no-limits language; string variables may be up to 16Mbytes in length and there are no limits on array sizes either (subject to available memory). Code generated is fully 68010/020/030 compatible.

Compiled programs have no run-time overhead; all compiled programs share an Amiga library. which may be distributed with programs without charge. Compiled programs multi-task, of course, but as they all share the same library, memory usage and disk space is kept to a minimum. There is also an option to produce completely stand-alone programs which include only as much of the library as they need.

A new feature of the latest version of HiSoft BASIC is the ability to link BASIC with C and assembler!

- Compatible with Microsoft QuickBASIC 3, Atari ST BASIC, AmigaBASIC and most other BASICs
- Full structured programming with long IFs, multi-line functions, sub-programs, CASE, WHILE, REPEAT, DO etc.
- Optional line numbers, lots of compiler and run-time options allowing tremendous flexibility both at compile & execution time
- Full recursion in sub-programs and functions plus local and global variables, arrays as parameters
- 5 types of variable, integers, long integers, single- & double-precision floats and strings of any size
- No limits; no program size limit and no variable size limits, memory permitting
- Interactive environment; invoke the compiler from the easy-to-use Intuition editor and all errors will be reported, in English, giving you the option to go straight back to the editor for correction or to carry on compiling. You can run your program from the editor so it's just like using an interpreter - but much, much faster!
- Power features like include symbolic debug, exploit maths co-processors and much more
- Complete with free AmigaBASIC Inside & Out tutorial book plus examples disk, for a limited time

"... the manual is clearly written and informative and an example of how a computer manual should really be written. HiSoft BASIC has got a great deal going for it. It's fast, portable, compiled and ... is quite simply the best implementation of BASIC yet seen on the Amiga" New Computer Express 28/1/89

ORDER FORM

Name

Address

Yes, please rush me a copy of the HiSoft BASIC Compiler for my Amiga at £79.95 inc.

I would like to pay by:

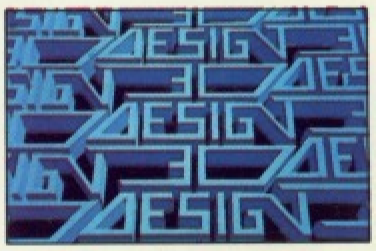
☐ Cheque/Postal Order ☐ Access/Visa

Access/Visa Card Nº

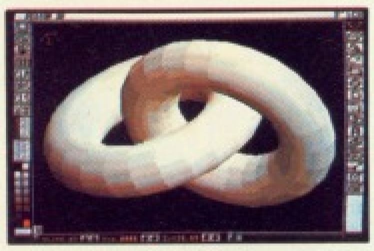
Expiry

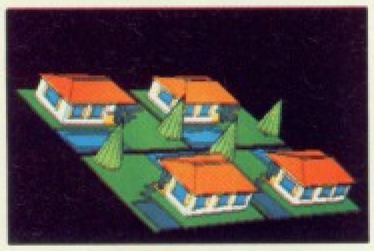
Signature

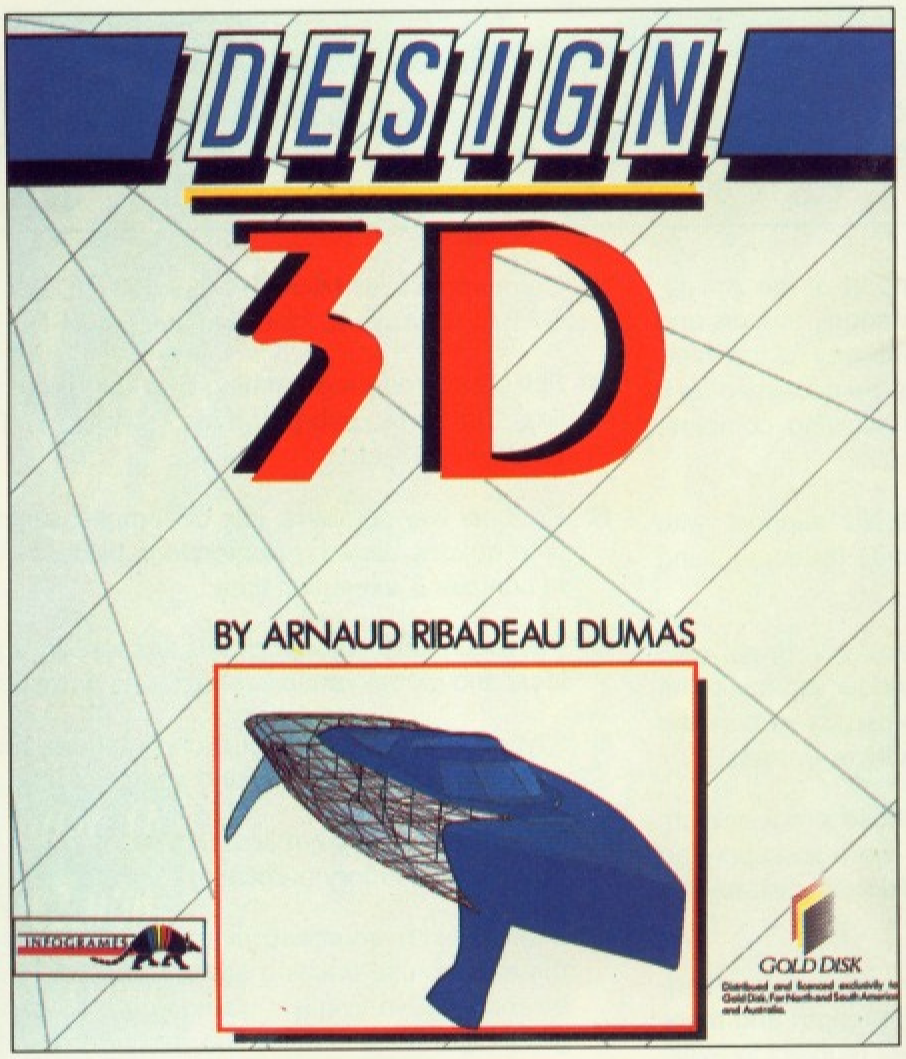
Send or phone your order to: HiSoft, The Old School, Greenfield, Bedford, MK45 5DE. Tel: (0525) 718181

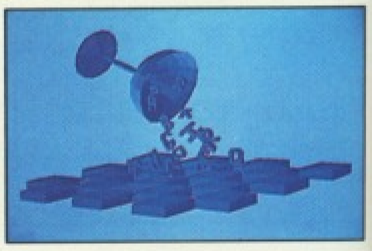






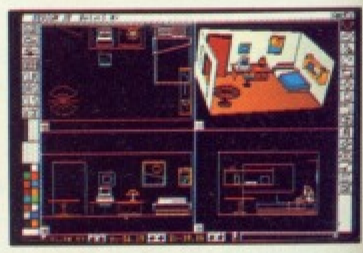












DESIGN 3D fully exploits all of the Amiga's capabilities (Graphics in 16 colour out of 4096, resolution of 640/512, rapidly, multitasking) in order to allow the creation of objects in real 3D. You visualize these in either four views (front, side, from above, perspective) or full screen. The perspective mode allows a representation with some sides hidden, according to seven different modes, one of which uses shading from 4 light sources. Furthermore, due to the fact that DESIGN 3D works in points, facettes and volumes, each of these entities can be manipulated independently from the others (moving, distortion, rotation...). Thanks to the output possibility on graphic printer or plotter (HPGL) you can see your designs on paper. Further, a parametric grid, a reticle, a font editor and the display of numerous parameters make DESIGN 3D an incredible user-friendly product for every person wanting to work in 3 dimensions. Instructions and program in English.

£79.95 inc VAT

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- **Simple User Interface.**
- **Quick to get impressive results.**
- **Includes Animation.**
- **Easy to rotate object in any dimension.**
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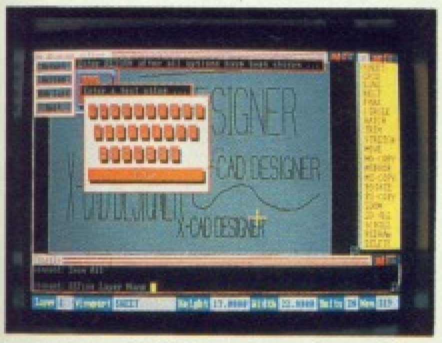
INFOGRAMES GOLD DISK

X-CAD DESIGNER

Powerful graphics chips make the Amiga ideal for a budget CAD workstation. JASON HOLBORN looks at the 'official' Amiga CAD package.

Over the past couple of months, Commodore have stepped up their advertising into the vertical markets. The latest market to receive the Amiga treatment is that of the low-end CAD workstation. Commodore have pulled together a range of 'official' Amiga CAD 'solutions', as the PR people like to call them. The basic system consists of an Amiga 2000 with 3 Mb of memory, 14-inch multi-sync colour monitor, 68020 accelerator card and the professional version of *X-CAD*, the suitably named *X-CAD Professional*.

Prices for these lovely bundles of kit range from about three grand right up to a whacking eight grand (although pricing is still to be confirmed). For the home market, however, there is a distinct possibility that Commodore may bundle



■ **This is *X-CAD Designer* in action: experimentation with text entry.**

both the A2000 and A500 with the low-cost version of *X-CAD*, *X-CAD Designer*. Modular Times' *X-CAD Designer* is a fully-featured, two-dimensional design and draughting tool which will be of interest to draughtsmen, designers and engineers alike. The package arrives in one of those very nice box folders that seem to be standard issue for serious PC software, but tend rarely to be used for Amiga products. Lurking inside the box you'll find a manual, a single program disk and a dongle, which must be plugged into the second joystick port for the program to function fully.

Both versions of *X-CAD* are designed in a modular form, which means the software is built up from three primary components: the *X-CAD* program itself, a set of run-time libraries and a set of command overlays. The advantage of this system is twofold. Firstly, system memory usage is kept to a minimum by loading commands only when they are required. Secondly, this modular form allows new commands to be added to the system comparatively easily by just adding extra command overlays and run-time libraries.

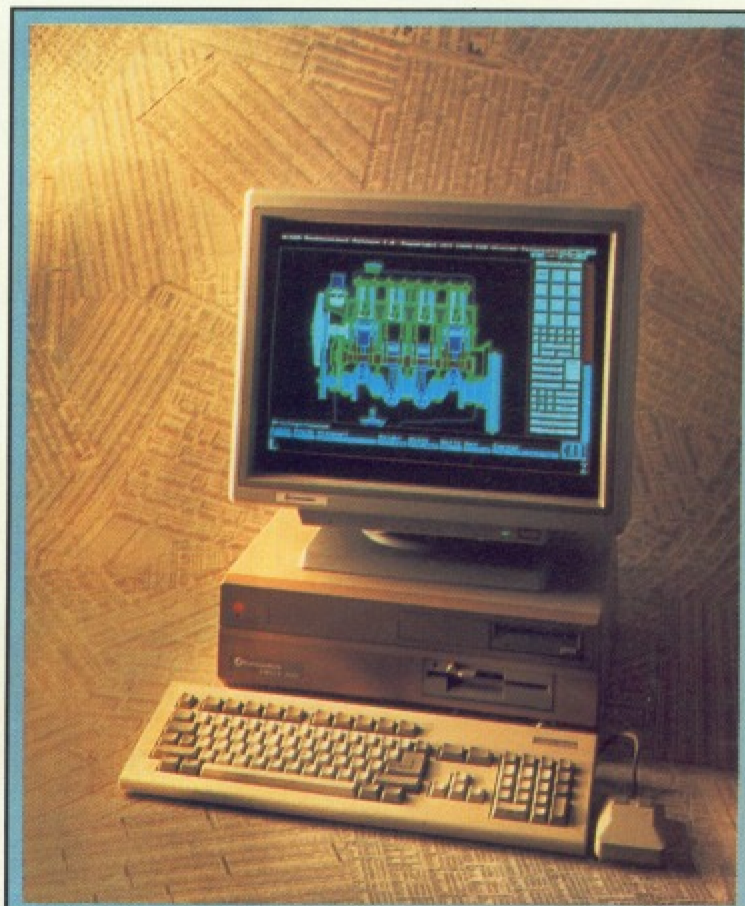
LAYER OF THE AMIGA

All professional CAD systems allow the use of layers, which means a diagram can be split up into several overlaying sections. *X-CAD* certainly isn't let down in this area, since it allows the definition of up to 256 different layers, which can be displayed in any combination.

X-CAD Designer features all the standard drawing tools that you'd expect to find in a high-end package, such as splines, cross-hatching, grouping, line breaking and trimming. All are executed at a phenomenal speed. This speed is probably X-CAD's greatest asset, because it uses the Amiga's custom hardware to offer redraw rates over five times quicker than those of the most popular PC package, *AutoCAD*, running on a 80386-based PC-compatible.

Once you've 'designed' your masterpiece, you'll want to output it to paper. Luckily for those of us who can't afford pen plotters, X-CAD has extensive support for dot-matrix printers. Even with a bog-standard nine-pin dot-matrix, some very professional results can quickly be produced. When it is printing, *X-CAD* automatically builds up a smoothed representation of whatever is on-screen, producing the highest resolution printout that is possible on your printer.

It is very unusual to find an Amiga package that not only destroys the competition on the host machine, but also on all other comparable machines. This system's greatest assets are undoubtedly its high level of adaptability and sheer operating speed. *X-CAD Professional* running on a 68020-based Amiga with the new super-high-res A2024 monitor could quite simply clean up the low-end CAD market. If Commodore's advertising department gets it right, I can see the Amiga and *X-CAD* becoming a formidable force. ■



■ **While *X-CAD Designer* is ideal for most semi-professional applications, for some users *X-CAD Professional* is the only choice. *X-CAD Professional* (£399) requires at least two megabytes of memory, but boasts a whole range of enhancements over *X-CAD Designer*. *X-CAD Pro* features full online help, an intelligent database, a complete programming environment and extensive batch processing facilities.**

We haven't yet had a chance to take a look at *X-CAD Pro*, but from initial impressions it looks like being a heavyweight, powerful package aimed at the big-league professional market. A set-up like the one shown here costs a tidy penny.



X-CAD DESIGNER
£115 ■ All Amigas ■ 1 MB required.
Cadvision International Ltd, Hazlitt Mews, London W14 0JZ.
Tel: 01 603 3313

CADENCES

CAD is one particular area of computing that has been revolutionised by the arrival of machines such as the Amiga. Previously, the image that surrounded any CAD system was of a powerful graphics workstation costing many tens of thousands of pounds, linked to a super-high-res vector screen that required a fork lift truck to shift it. With the arrival of powerful personal computers such as the Amiga, CAD has finally been brought within the reach of the masses.

Apple's Macintosh has earned itself the rare honour of being regarded by many as almost a 'cult' computer. JASON HOLBORN checks out A-MAX, a new hardware add-on that will give your Amiga that old Mac magic.

BIG MAC & CHIPS

A Mac emulator for the Amiga certainly has taken a long time to arrive: ST owners have been happily running Mac software on their machines for over a year now. What has finally arrived is a hardware-based emulator that has a very simple objective: to turn your Amiga into a perfect imitation of a Macintosh Plus computer.

The first thing you'll probably ask yourself before considering forking out for any emulator is "What can this machine do that I can't already do on my Amiga?" Well, the answer to that question isn't as straightforward as it would first seem. It would be correct to say that there probably isn't a great deal that you can do on a Mac that you couldn't already do on your Amiga. So why even consider a Mac emulator? Well the reason, put simply, is that Mac versions of software are often considerably more powerful than similar packages on the Amiga.

One area that the Mac excels in particularly is that of Desk Top Publishing. Compare *Professional Page* on the Amiga to even the simplest of Mac DTP packages and you'll soon realise why nine out of ten electronic publishers prefer the Mac. The Mac WIMP system, *Finder,* lends itself very well to heavily graphics-based applications such as DTP and although the machine lacks the advanced graphics hardware of the Amiga, graphics-based applications still manage to steam along at an astonishing rate. For an example, try comparing the redraw speed of *Professional Page* to that of a similar Mac package. The Mac has almost completely captured the DTP market with its excellent range of professional DTP packages.

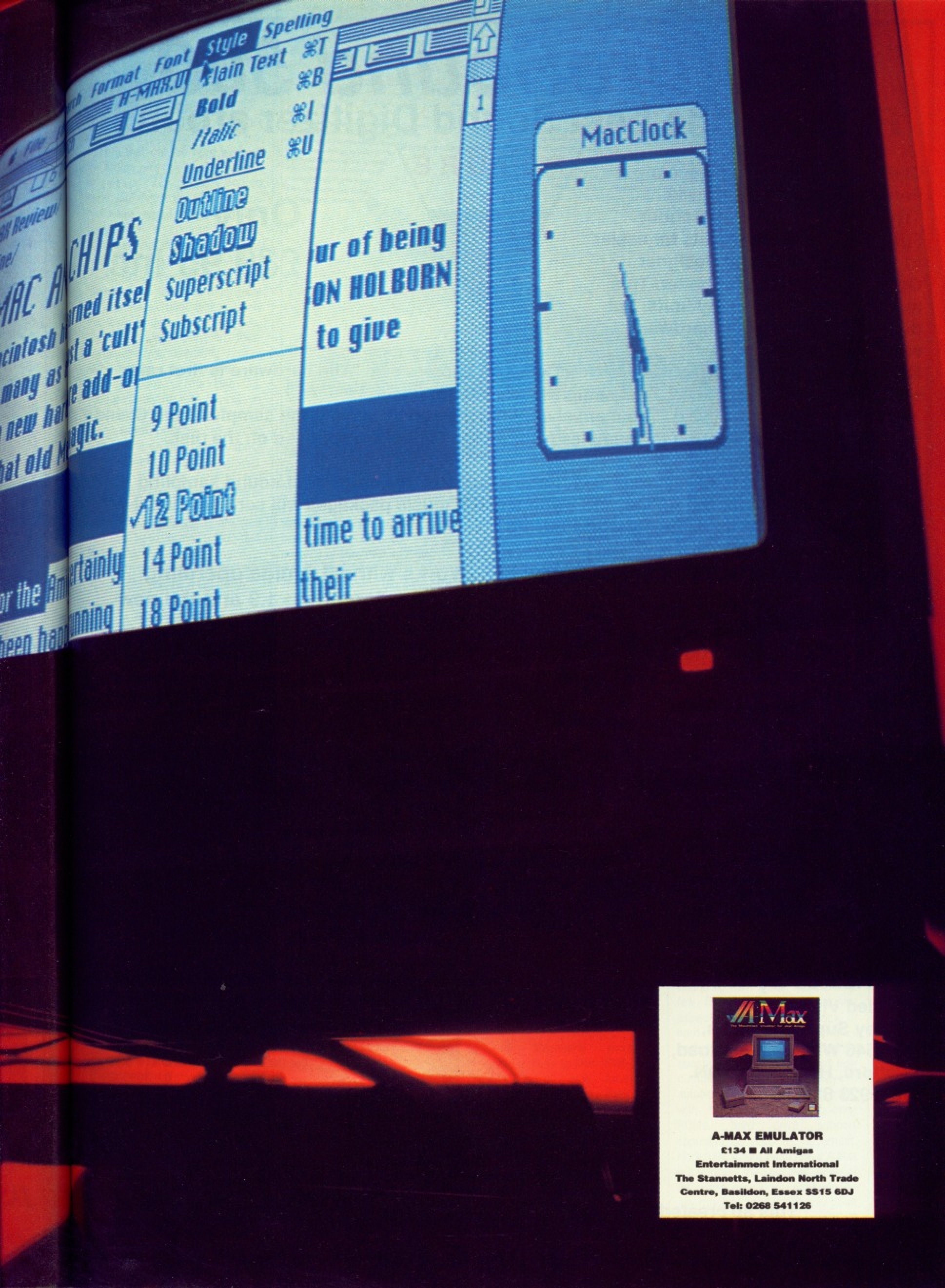
SETTING UP YOUR McAMIGA

As is the case with nearly every emulator known to man, A-Max isn't a 'plug in and go' add-on. After you've found a source for the Mac ROMs (no easy task), the next job is to actually get the Mac's WIMP operating system, *Finder*, over to an A-Max format disk. Because of obvious copyright restrictions, A-Max isn't supplied with the Mac OS: You'll have to obtain a copy of that yourself.

Once you've found a friendly Mac user who is willing to let you borrow a system disk, the next problem is how to get the contents of a Mac disk across to an A-Max disk. The Mac uses a special multi-speed drive with a disk format that cannot be read by any machine other than a Mac, so just inserting the Mac system disk into your Amiga drive isn't the answer (that would be far too easy!) If, however, you have access to a Mac second drive, getting *Finder* across is childsplay, because A-Max will allow you to plug any standard Apple drive into the A-Max cartridge and use it as you would with a 'real' Mac.

Thankfully, unlike with similar units on the ST, this initial setting up is fairly straightforward and can be achieved in no time at all. Although Amiga drives cannot handle the multi-speed nature of Mac drives, they are highly adaptable and can be forced to read just about any format with the right software (*DOS-2-DOS* is a fine example: it allows the Amiga



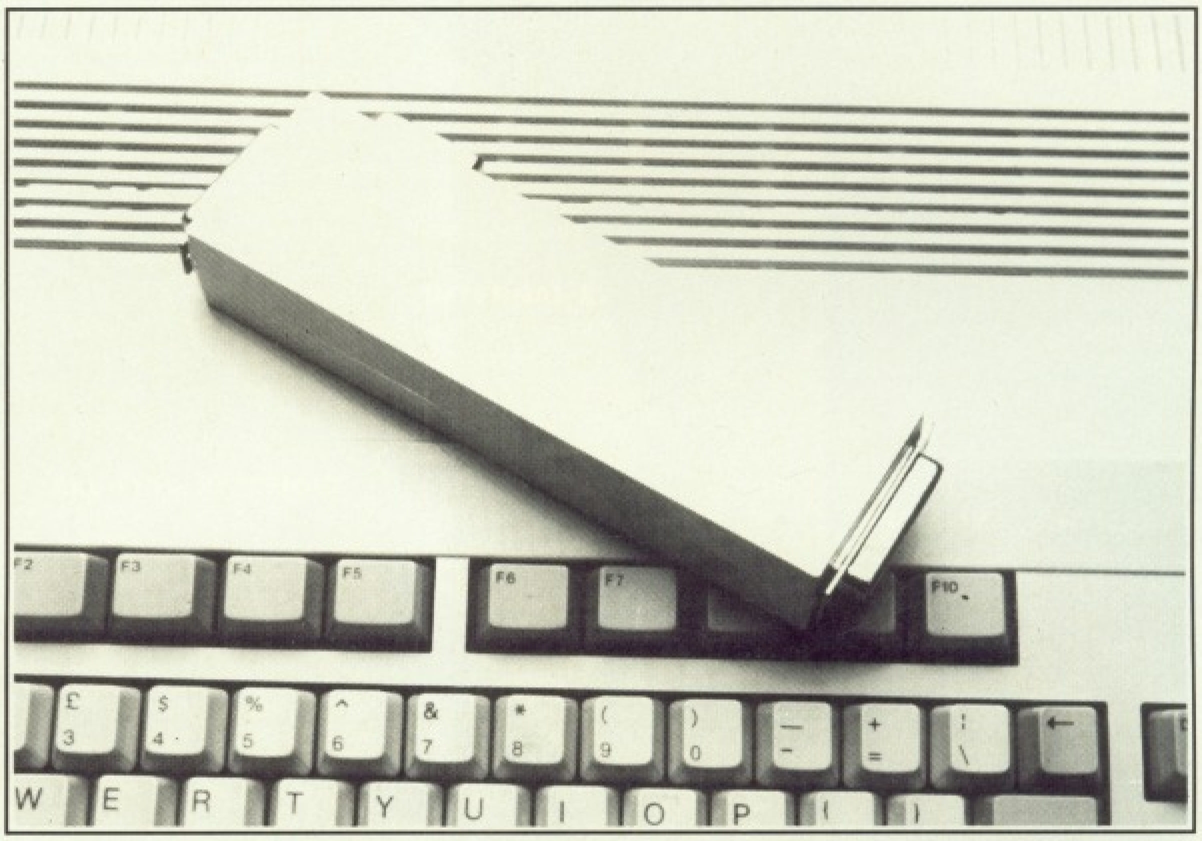


A-MAX EMULATOR
£134 ■ All Amigas
Entertainment International
The Stannetts, Laindon North Trade Centre, Basildon, Essex SS15 6DJ
Tel: 0268 541126

to read IBM and Atari format disks). Special formatting software is provided for the Mac that allows the creation of a mini transfer-disk that can be read by both the Amiga and the Mac. This disk only has a 272K capacity and so once you've got the Mac desktop on-screen, you're strongly advised to transfer a comms package across so that larger applications can be brought across into A-Max.

To get A-Max up and running, there are two files that must exist on your A-Max boot disk, namely the Apple *Finder* and *System* files. These two files between them contain the Mac operating system and desktop environment. On some versions of the Mac OS, you'll probably have to remove as many fonts and desktop accessories as you possibly can so that both files fit on the limited capacity of the transfer disk.

Once both the *System* and *Finder* files are on your transfer disk, A-Max will boot up and your hybrid Mac will spring to life. The next step is to format a Mac disk from within A-Max and copy both files to this disk so that the mini transfer-disk can be used again.



■ **This is the A-Max unit itself: an innocent-looking grey box that plugs in the Amiga's external drive port.**

SOFTWARE COMPATIBILITY

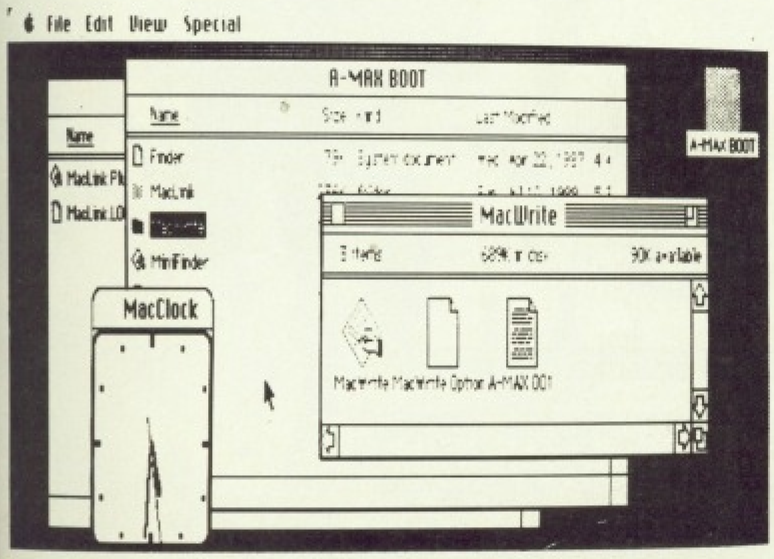
ReadySoft, the producers of A-Max, claim that A-Max will run most productivity software without problems. We've managed to test several major Mac packages such as *MacWrite, MacPaint, MacDraw, PageMaker 2* and the public domain comms package Red Ryder, all of which worked without any problems. A-Max will also support *HyperCard* and the new *Multifinder*, although you'll need at least a megabyte to take full advantage of these.

What A-Max won't run is any software which bypasses the Mac operating system routines and hits the hardware directly. The kind of software that will definitely not run under A-Max includes the vast majority of Mac midi software, and quite a few Mac games software. The good news (in the view of the *Amiga Format* team) is that Spectrum Holobyte's excellent Mac version of *Tetris* works fine!

SCREEN SCENE

On a standard Amiga using the current release of Agnus, Mac emulation can operate in both high-res interlaced and medium-resolution screen modes. A-Max also provides full support for the new enhanced chip set (if we ever see it!) and the new high-res mono monitor, the A2024.

For those of you without either ECS or the A2024 (ie, 99.9% of Amiga owners), the rather annoying flicker of the Amiga's display in hi-res mode makes it almost unusable, so after the initial attraction of high-res, you'll probably end up using A-Max in medium-resolution mode.



■ **Even the desk-top accessories, like the Mac Clock, are supported.**

When using ECS with a multi-sync monitor, A-Max will provide a very attractive working environment. With the A2024, the A-Max screen resolution rises to an impressive 1008 by 800: virtually the same as that offered by a £5000 Macintosh 2.

HARDWARE CORNER

The A-Max hardware consists of a long, grey box that plugs into the external drive port. As well as providing a pass through connector for external Amiga drives, the A-Max hardware provides a connector for an Apple external drive. Unfortunately, Apple external drives (in fact, Apple hardware items in general) are not particularly cheap, but if you intend using A-Max seriously the investment will be worthwhile because it will allow you to read Mac disks directly.

Unfortunately, the current release of A-Max doesn't support hard drives, although plans are afoot to include this in future versions. For some applications, hard drives are a vital necessity, so the lack of support could prove to be something of a problem.

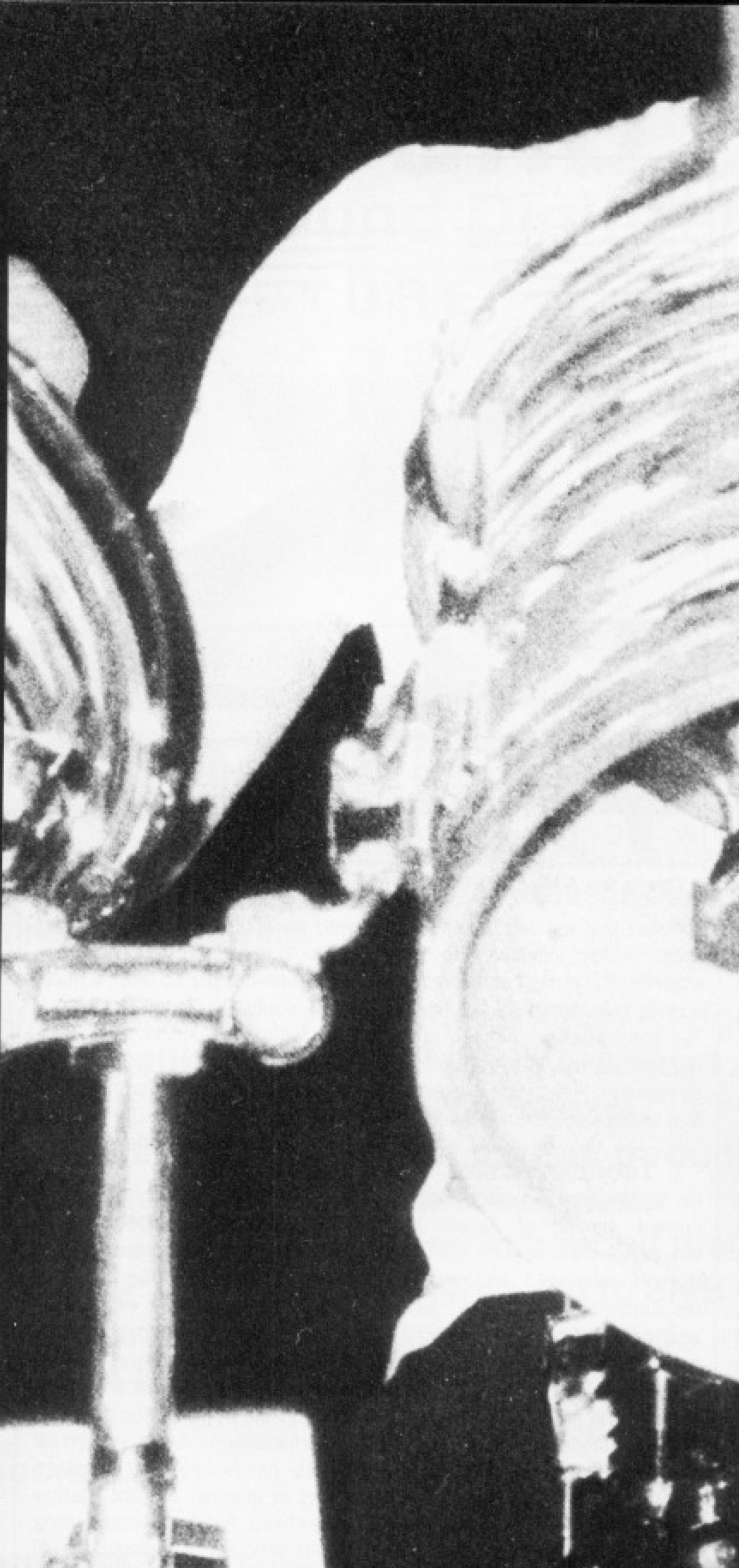
All Macintosh emulators require access to Mac ROMs, and A-Max is no sole exception. Unfortunately, A-Max does not come as standard with the necessary slithers of silicon, so you'll have to purchase them separately. A-Max will accept both the old 64K ROMs from the original Mac and the newer 128K ROMs from the Mac Plus. The larger ROMs have several advantages over the older 64Ks in that they run faster and are able to handle a higher proportion of the newer Mac software. If you have an accelerator card in your Amiga, you must have 128K ROMs because the smaller ROMs are not compatible with these more advanced processors.

Installing the ROMs into the A-Max cartridge is childsplay (although removing them from a Mac is a nightmare!). With them installed, your Mac is ready to roll.

Obtaining Mac ROMs can be a difficult task: most Apple dealers are not to keen to hand them out. Unfortunately, this means that UK-based suppliers who are willing to admit the fact that they supply Apple ROMs are very hard to find. Entertainment International are currently looking at the possibility of supplying ROMs as well as the A-Max unit itself.

CONCLUSION

A-Max certainly is an impressive piece of hardware. It is highly compatible, and the inclusion of ECS and A2024 graphic modes is bound to earn A-Max more than a few friends. The only negative aspect of A-Max is the lack of hard disk support, which makes professional use of the system questionable. Many users will also complain about the inability to autoboot A-Max from hard disk: with the new 1.3 autobooting ROMs, hard drive support shouldn't be hard to implement. Hopefully, future releases of A-Max will address this: but this is one of the best emulators available on any machine, and is not only great fun to own, but also very useful. ■



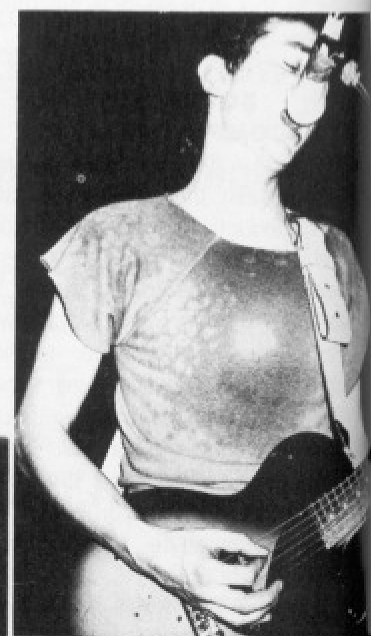
This is a journey into sound: a guide to what the Amiga can do musically. You don't have to lash out on lots of expensive goodies, and it doesn't matter if you're about as musical as doorpost and can't read a note. One of the main points of computers and music is to make things easier, not baffling. With only a modicum of effort, you can knock up very respectable musical works. Honest!

ALL THIS, AND MORE

Your Amiga, in its naked, straight-from-the-box state, will perform three musical roles. Firstly, it will **CREATE** sound entirely of its own by tweaking the internal sound chip. This effectively means the computer instantly becomes an instrument, a synthesiser, in its own right.

Secondly, it **RECREATES** sound: for instance, it can take samples of noises from the real world, so that genuine drum or violin notes or even human voices can be built into a piece of music. Similarly, it can store, change and recreate all manner of artificial synthesised sounds.

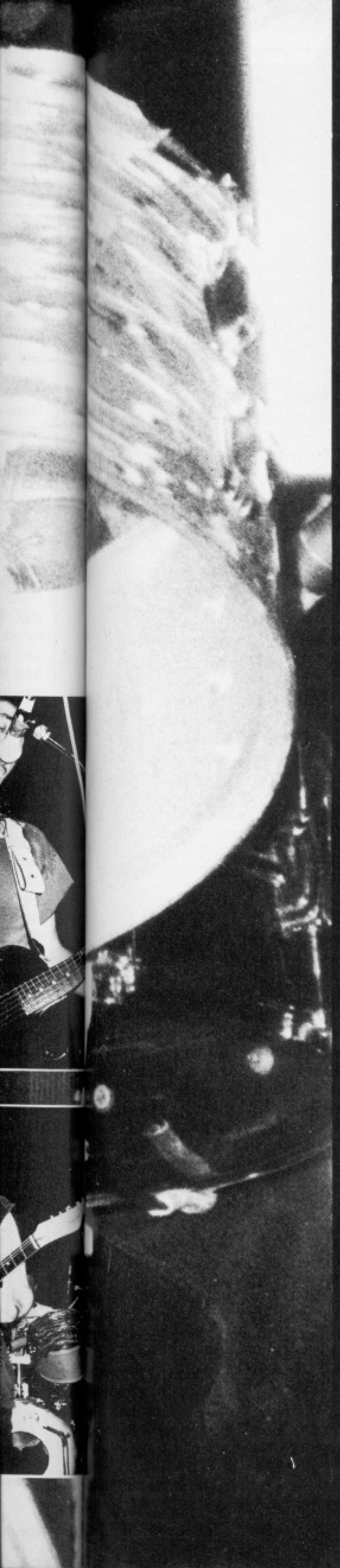
Thirdly, it can **ORGANISE** these sounds, building up individual notes to create a piece of music in a role that is known as sequencing. And all this without a bolt-on in sight. Many Amiga music packages offer all three of these options under one roof, whereas more specialised programs will make extensive forays into just one area.



MUSICAL MAYHEM



Music Editor Jon Bates explains that with no talent, no expensive equipment and one Amiga, you too can make incredible music…



his is a journey into sound: a guide to what the Amiga can do musically. You don't have to lash out on lots of expensive goodies, and it doesn't matter if you're about as musical as doorpost and can't read a note. One of the main points of computers and music is to make things easier, not baffling. With only a modicum of effort, you can knock up very respectable musical works. Honest!

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Thirdly, it can **ORGANISE** these sounds, building up individual notes to create a piece of music in a role that is known as sequencing. And all this without a bolt-on in sight. Many Amiga music packages offer all three of these options under one roof, whereas more specialised programs will make extensive forays into just one area.

AND MIDI MAKES SIX

MIDI, the Musical Instrument Digital Interface, is a common language that enables the Amiga to perform all three functions with electronic instruments. With a synth, for instance, it can create sounds to be replayed from the keyboard as well as storing, recreating and editing those sounds: the sounds are called voices, so this function is known as voicing. Particularly important with MIDI is the organising of sound: sequencing. As a sequencer, the Amiga can, in effect, record music played on electronic instruments, and edit the music so bad notes are chopped out, play the piece back via the instrument. Moreover, MIDI allows for 16 channels, so 16 separate instruments can go into one song, and the sequencer allows sections of a piece to be looped, repeated and generally messed about with.

The usual MIDI interface uses the serial port of the Amiga although there are in existence plug-in boards which will give you permanent MIDI ports. MIDI travels at 31.25K baud, which is quite fast enough for most processes. And the beauty of MIDI and the Amiga is that the interfaces are all one standard.

INTERNAL EXPLORATION

First off, the internal sound chip. A quick flick to the back of your Amiga book produces a picture of the sound chip "Paula". Not terribly enlightening, but it gives you a rough idea of the chip's capabilities. It can produce four sounds simultaneously and spread them between the stereo left and right ports. It has a range of nine octaves – one more than a piano – and the claim about using amplitude and frequency modulation means it can create sound from both simple and more complex waveforms. Obviously the way forward is to seek some reasonable software to control it, so a selection of the most commonly available packages follows.

INSTANT MUSIC

Perhaps the most 'entry level' program is *Instant Music*. For 'entry level', read 'absolute bozo beginner'. *Instant Music* is rather a neat composition program that doesn't really require any musicality on behalf of the user. It uses a graphic score, a series of coloured oblongs relative to the length of the note which scroll past on screen: a different colour represents each instrument, and it comes with a full compliment of sampled instruments. Actual composition is performed by dragging and placing blobs around the screen; the higher up the screen , the higher the note. If you drag the note out from left to right it becomes longer. Notes occurring at the same time form a chord, and every movement of the note on screen lets you hear the pitch and sound of that note. If you are familiar with traditional notation this is a really slow way of working, but as a heuristic (such big words!) approach to music it works very well.

The favourite feature is 'Mouse Jam' which everybody who has had a go with this program becomes addicted to. You select the backing and style that you want to play with and away you go. By clicking the mouse and moving it around the screen it manages to play only those notes that sound in tune and in stylistic keeping with the backing; a form of 'artificial intelligence' that should be a compulsory implant in the brains and fingers of adherents to the 'Widdly Widdly School of Guitar Torture'.

MUSIC STUDIO

If you can live with the fact that your sound files will not be compatible with any other program, a decent sequencing and sound creating package is the *Amiga Music Studio*, which has a very good instrument design page. The program comes with fifteen preset sounds which can be subjected to a whole host of alterations: harmonics, envelope shape, sustain, vibrato and tremolo, and stereo position. Not a bad introduction to the world of sound (or voice) creating.

It offers you a choice of either graphic or traditional music notation to sequence the notes. Graphic is an alternative to traditional musical notation that uses a set of shapes to represent notes. The usual way this is done is to have the pitch of the note running from the bottom of the screen to the top and the time/length of the note running on the other axis from left to right. With *Music Studio* each instrument is given a separate colour. You can even add lyrics to your efforts and it supports the full 16 MIDI channels in and out.

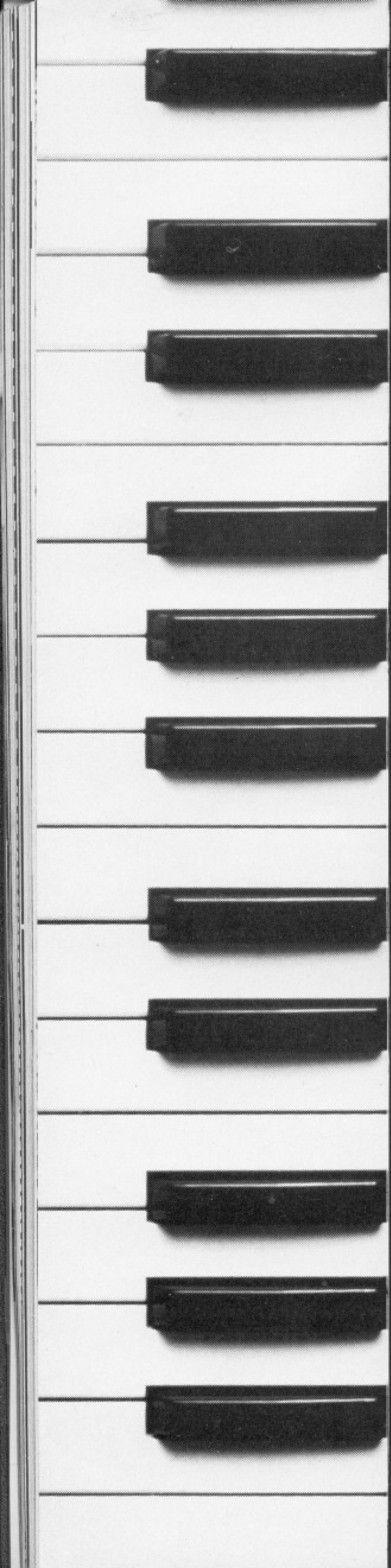
PAULA IN PUBLIC

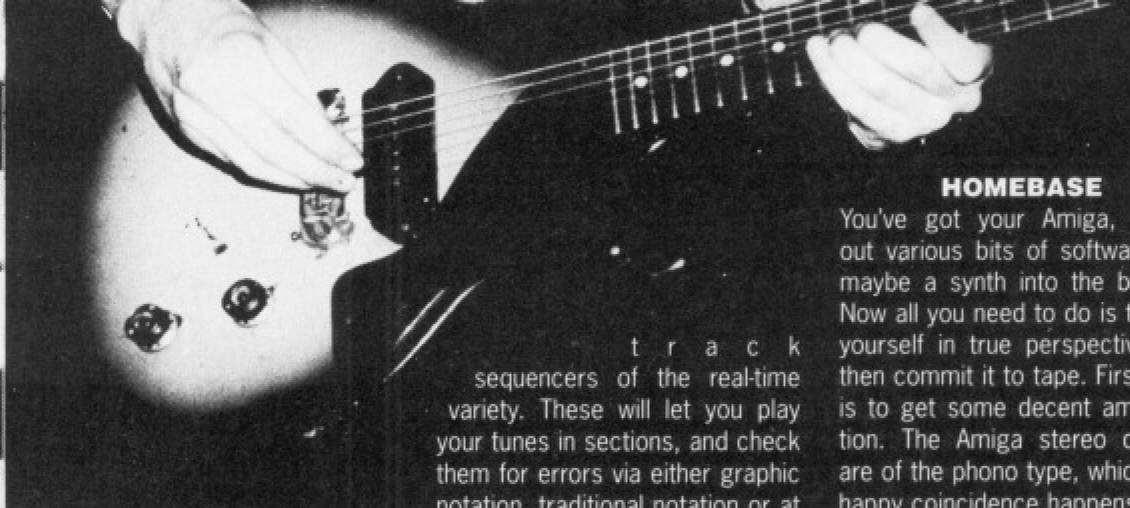
There are several Public Domain programs that give you access to the Paula chip in varying degrees. There will be an article in the not too distant future covering the music aspect of PD software. But for now, you could check out Fish Disk 94 which has an 'Audio Tools' utility.

SAMPLING

Avoiding the technical details for the moment, sampling is the way in which sound is encapsulated digitally. The most critical part of this, as far as your ears go, is the actual conversion from messy electrical impulses to digital data, and vice versa, known in the business as ADC (analogue to digital conversion) and DAC (you can work that one out).

Most other micros require hardware to convert sound to digital and back again, but the Paula chip is very efficient at converting digital data back to the stuff that makes your speakers work. It would be not far short of the truth to say that the sonic capabilities of the Amiga rival all but the most expensive – as in coming up to £1000 – of professional samplers. Plus with sound editing software you can actually see the sound and play around with it,





something that is a real pain to achieve on a piece of dedicated sampler hardware.

Since there is also a common standard for storing data (IFF), it follows that many sound sequencing and creation programs come with sampled sounds all ready to play. Any sample can usually be loaded into another piece of suitable software. There are also programs about that will let you arrange these sounds into pieces that can subsequently be stored as a module to be used in games, or wherever.

Although you can easily enjoy the benefits of playing back prerecorded samples, making your own will require some outlay. The three main contenders are the Pro Sound Designer, AMAS, and the Datel Amiga Sampler. Compatible with these are MIDI players that allow the samples to be played from a MIDI keyboard. However, *ST/Amiga Format* marketed sampling hardware in kit form in Issue 11, May 1989. This is available from Magenta who will also sell you the sampling hardware, Perfect Sound, for a ridiculously low sum. How's that for a low-cost entry into sampling? There will be a sampling special in a coming issue, but for now check Pages 31 and 73.

MIDI STEP BY STEP

Two good MIDI programs are *Aegis Sonix*, which contains sections on all the subjects mentioned (creating sound, altering sound, creating songs and handling MIDI data) and *Deluxe Music Construction Set*, which is a step-time sequencer. You insert the notes individually defining length and pitch for up to eight parts, using a combination of up to four of the internal voices and four of the external MIDI channels, although you can if you wish use up to eight MIDI channels as well as the internal voices. It has a full palette of notes and signs and the graphics are well-observed. Sound editing features are absent, however.

MIDI ON THE ROLL

The ball really starts to roll when we start to consider multiple-track sequencers of the real-time variety. These will let you play your tunes in sections, and check them for errors via either graphic notation, traditional notation or at worst a data stream. Having sorted out the major calamities you can then call some smart software routines to help you correct bad notes and timing blunders, which is known as Quantizing. Once all is to your satisfaction, you can organise the sections that you have recorded into a full-blown arrangement.

The list of dedicated MIDI sequencers for the Amiga gets longer each month and so I won't bore you with the details. However there are two programs soon to be available which will open up the field for the Amiga. The first is a version of one of the most successful of all MIDI sequencers, the *Steinberg Pro 24*, only available up until now for the ST. I think this is a measure of how Steinberg, who are a German software house, view things. Although they are starting to make inroads into the American market which is awash with PCs, they see the way forward on the Amiga, and not the PC with its problems of no standard interface (unless you count the ultra-expensive 'industry standard interface' of the Roland MPU401 at £250 a throw!) The *Steinberg Pro 24* will cost exactly that, £250. Watch this space for an in-depth review of what is promised to be not merely a cross-over but also an update.

More promising still is the modular program from the San Francisco based Microlllusions who are launching *Music X*. This modular program does all sorts of sequencing with several different types of editing features, all very professional, as well as full MIDI features. While all this is running you can also call up other modules which are resident in the machine at the same time. These will do voice-editing for various synthesizers and store them in libraries, which can be called in at any given moment into the sequencer, and will also handle voice creation and sample editing. The demo versions seen so far are tremendous. A full review should be possible soon, but meanwhile take a peek at the News pages.

HOMEBASE

You've got your Amiga, sorted out various bits of software and maybe a synth into the bargain. Now all you need to do is to hear yourself in true perspective and then commit it to tape. First thing is to get some decent amplification. The Amiga stereo outputs are of the phono type, which by a happy coincidence happens to be the same as most hi-fi amplifiers, so as long as the amp can accept an external source in, usually called Aux, you're away.

The part of the sound chain that is most suspect is the speakers themselves. A decent set of speakers will improve a hi-fi no end whereas a decent amp shoved through a rubbish pair of speakers still sounds pretty naff. If you have neighbours who will not appreciate a few hundred watts of bottom end bass line rattling the headboard of their bed at 4 am then maybe a good pair of headphones is in order. Money spent in these areas will save a lot of frustration later on. What you should try to get is a true picture of the sound in all its glory. If you don't, then when you transfer it to tape and take it somewhere with a decent system, your prized efforts will start to sound like a crossed telephone line to Greece with all sorts of unheard-of bangs and whistles.

There are various other items – no, lots and lots of other items – that can be thrown into the chain of sound recording. In fact there is scope for a complete feature on just that in some future issue. The bottom line for anything like a mixer, tape deck or effects unit is to ensure that it doesn't add any significant amount of noise into the system. If you insist on using cassettes obtained free at the local garage along with a dirty old cassette player that used to double as a data recorder you'll get no sympathy from me when the result sounds like it was recorded on the wing of a 747 at 30,000 ft. ■

Now, the facts: the prices of all the packages mentioned in this article, and names, addresses and phone numbers of suppliers.

AMIGA MUSIC STUDIO
£24.99, Activision, Blake Hill, Manor Farm Rd, Reading, Berks, RG2 0JN. (0734 311666)

INSTANT MUSIC
£24.95, Electronic Arts, Langley Business Centre, 11/49 Station Rd, Langley, Nr Slough, Berks. (0753 49442)

REAL-TIME SOUND PROCESSOR

Amiga sound samplers come in a multitude of different shapes and sizes. JASON HOLBORN checks out a sound sampler with a difference.

The Real-Time Sound Processor takes the Amiga's sound sampling capabilities that bit further by using it not for straight sampling, which until recently had been the sole application, but as a powerful sound manipulation tool. If you've ever used professional synthesizers such as the Roland D-50 supersynth or Yamaha's V50 Keyboard Workstation, then you're probably already familiar with the concept of sound processing.

When a sound is produced, feeding it through a sound processor can enhance the sound by adding new characteristics to it. For example, a reverb unit adds a 'roomy' feel to a sound, so it sounds as if it was played in a large hall.

MANIPULATING TIME

This Amiga-based sound processor takes an external mono sound signal (such as that outputted by a CD player, Hi-Fi or synthesizer), samples it at an astonishing 50 KHz and then manipulates it before it is emitted through the Amiga's stereo sound outputs. All this activity takes place in real time, which actually allows the unit to manipulate a continuous sound signal.

What you get for your money is the actual sampling hardware itself (which also functions as a conventional sound sampler if you've a software package such as *Aegis AudioMaster*) which plugs into the parallel port, a spiral-bound manual, a single disk containing the sound processing software and a rather large dongle which must be plugged into the second joystick port for the software to work at all. I've never been a great fan of dongles and on a multi-tasking machine such as the Amiga: where several packages can be running simultaneously, they can be a real pain.

N-N-N-NINETEEN!

The package provides nineteen preset sound manipulation tools such as Echo, Reverb, Delay, Flange and both AM and FM modulation. As well as these presets, you can also configure your own effects using the extensive software controls and then store them in any one of 127 preset slots. Playing around with the supplied presets can be a lot of fun in itself, particularly if you've got a microphone that you can link up to the sampling hardware.

One unique and potentially very useful feature of the Sound Processor is the ability to change the current preset through MIDI control. This is achieved using the same MIDI 'program change' messages that are used to change the sound to be played on a MIDI synth. This could be very useful when used in conjunction with a sequencer as it would allow your sequencer to control not only the operations of your synths, but also the sound processor.

ARSENAL!

For the Amiga user who also enjoys tinkering around with their home keyboard, the Sound Processor provides a useful addition to a music-making arsenal. The unit is undoubtedly flexible and costs considerably less than even the cheapest of professional effects units, but unfortunately it fails to deliver the kind of sound quality that serious musicians demand. This isn't really a fault in the sound processor itself, but merely a limitation of the Amiga's hardware.

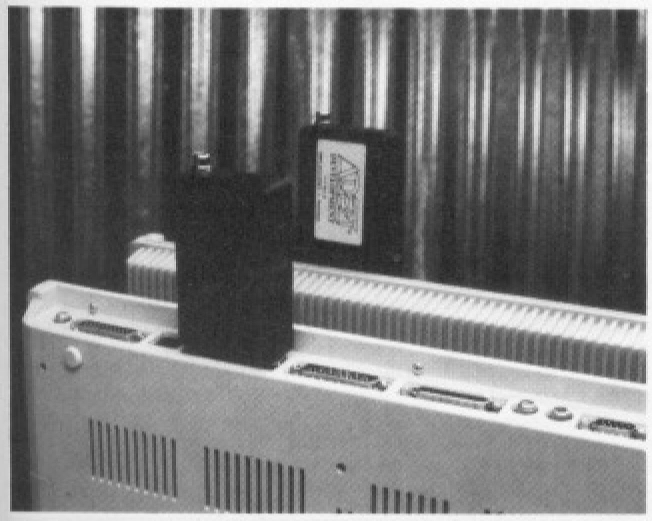
For serious use, sound processors need at least a twelve-bit resolution, which is four bits more than even the Amiga can handle. Without these extra bits, the sound produced can become muffled and hollow, which really isn't acceptable for serious music making. If the unit featured a sixteen-bit sampling resolution, then it would not only be a corker of an Amiga product, but would also leave quite a few professional units out in the cold. If you want to use a sound processor seriously, you're probably best advised to fork out the extra cash and buy a dedicated effects unit.



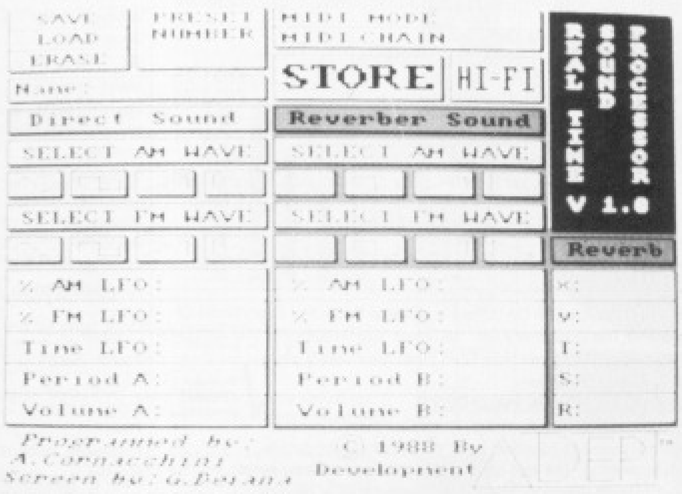
REAL-TIME SOUND PROCESSOR
£84.95 ■ All Amigas.
HB Marketing, Brooklyn House,
22 The Green, West Drayton, Middlesex
0895 444433

SAMPLE THIS!

The Amiga has always been a great machine for the creation of musical masterpieces, using either the Amiga's powerful sound chip or, if you have the necessary equipment, through MIDI sequencing. Another area of sound creation in which the Amiga is particularly capable is that of sound sampling, or, if you like, sound digitising.



■ **The sampling hardware plugs into the serial port, accompanied by a large dongle in Joystick Port Two.**



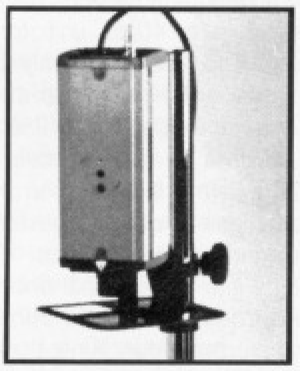
■ **The Real-Time Sound Processor offers twenty preset effects including echo, reverb, flange and delay.**

WORKBENCH

It's so big! Workbench returns with the biggest and best collection of hints, tips and tricks for your Amiga, and JASON HOLBORN answers your problematic prose through the Workbench Helpline.

MONEY GRABBERS

Please, please, please, can you help? I've just spent the last six months saving £250 to splash out on a colour digitiser. There are several available that all seem to offer similar facilities: which one would you choose?
Michael Nash, Chelmsford, Essex



The choice of the right video digitiser really depends on what you intend to use it for. From your letter, it seems obvious that your decision will be guided by the extent of colour support offered by digitisers. If you aren't particularly worried about the digitiser being able to grab images at any great speed, then NewTek's Digi-View 3.0 unit is still one of the best (and cheapest!) colour digitisers available.

If you do want to digitise colour images, you'll also need to fork out for a black-and-white video camera. Surprisingly, these cameras can be picked up quite cheaply from most Amiga dealers (try the Amiga Centre Scotland on 031 557 4242 for both Digi-View and the video camera).

LOST WITHOUT A KEYMAP

After purchasing Issue 11 of your parent magazine *ST/Amiga Format*, I tried using the *SetKey* utility that was included on the free coverdisk. After a few seconds of disk access, the *SetKey* window appeared, but apart from the menu bar nothing else was displayed. When I tried to quit out of *SetKey* by double-clicking on the 'window close' gadget, the machine just locked up and I was forced to reset my Amiga. What am I doing wrong?
SF Lawrence
Gosport, Hants

There does indeed seem to be a problem with the SetKey *utility, which had us stumped for quite a time. The problems lies in the fact that the program was written for the American market and therefore expects the default keyboard setting (set using the CLI command* SetMap*) to be usa0. If you boot your Amiga with the British version of Workbench, the keymap is automatically changed to the UK configuration which confuses* SetKey.

To get around this, you will have to change the current keymap at the CLI prompt by typing 'SetMap usa0'. You can now run SetKey *without problems.*

After you have finished using SetKey, *to change back to the British keyboard configuration, just go back to the CLI and type 'Setmap gb'. Thanks to Phil Wares and Chris Morris of Cranbrook in Kent for sorting that one out!*

ARE YOU PRO PROTEXT?

My reason for writing is twofold. Firstly, I am soon to purchase a memory upgrade and a Star LC-10 colour printer for my Amiga. I am also hoping to purchase a word processor and a colour DTP package, aiming to spend about £150 at the most. I've been advised to buy *Protext* and *Comic Setter*: are these goo choices? My second reason for writing is to help other Amiga users obtain ridiculously cheap public domain software. I get all my PD disks from Ray Burt-Frost, a disabled Amiga fan who runs his own PD library. His PD disks often retail as low as 50p – quite an eye opener when you realise that other companies are charging around £3! Could you please print Ray's phone number so that other Amiga owners are able to take advantage of Ray's generosity. Ray Burt-Frost can be contacted on 0703 785680.
DF Way
Harpenden, Herts

As far as Amiga word processors go, Protext *is without doubt one of the best available. The program is powerful, fast and fairly stable. Where colour DTP is concerned,* Comic Setter *isn't really the ideal choice as it is rather limited for serious DTP applications. You would probably be much better off forking out the extra dosh for* Professional Page.

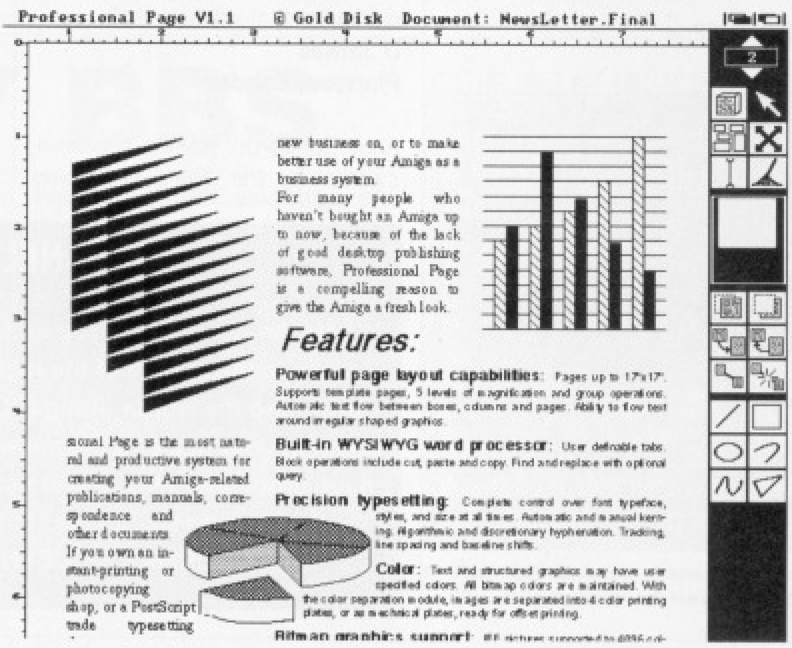
Can we print Ray Burt-Frost's phone number? Well, consider it already done!

HARD FACTS

I am thinking of buying a hard drive for the Amiga 500. I have looked through various magazines and they all seem to sell for around £400 for a 20 Mb drive. Which is the cheapest?

I have already seen Macintosh emulators for the ST: do you know of any similar units for the Amiga?

■ ***Professional Page:* currently the only professional-standard DTP package on the Amiga to date, but watch out for *Pagestream*.**



IS YOUR WORKBENCH A BIT PLANE?

How many colours does your Workbench screen have? Unless you've treated yourself to a package such as *Icon Paint*, you're probably limited to the standard four (though Workbench 1.4 will fix this). The following AmigaBASIC program is designed to allow you to add and remove as many bitplanes as hardware constraints will allow (a minimum of one and a maximum of four).

The two plane-manipulating routines are written as subprograms that can be called straight into your programs and are accessed in the same manner as any standard AmigaBASIC subprogram.

Using the programs couldn't be simpler. Firstly, make sure that you have the two .bmap files, 'intuition.bmap' and 'exec.bmap', in the same directory as your program. To add an extra plane, just call up the 'CreatePlane' subprogram and extra colours will instantly be made available. Extra bitplanes mean less free memory and slower program execution and therefore, to remove a plane, just call 'NukePlane'.

Fergal Moane
Belfast, NI

```
REM ** The following three lines must be
REM ** at the very start of your prog.

LIBRARY "intuition.library"
LIBRARY "exec.library"
DECLARE FUNCTION AllocMem& LIBRARY

SUB CreatePlane STATIC
    bitmap&=PEEKL(WINDOW(7)+46)+184
    bitplane&=PEEKW(bitmap&)*PEEKW(bitmap&+2)
    wdepth%=PEEK(bitmap&+5)
    IF wdepth%>5 THEN EXIT SUB
    newplane&=AllocMem&(bitplane&,65538&)
    IF newplane&=0 THEN ERROR 7
    POKEL bitmap&+5,wdepth%+1
    IF wdepth%<5 THEN CALL RemakeDisplay
END SUB

SUB NukePlane STATIC
    rastport&=WINDOW(8)
    bitmaps&=PEEKL(rastport&+4)
    current.planes%=PEEK(bitmaps&+5)
    window.base&=WINDOW(7)
    screen.base&=PEEKL(window.base&+46)
    screen.width%=PEEKW(screen.base&+12)
    screen.height%=PEEKW(screen.base&+14)
    planes%=current.planes%-1
    IF current.planes%=1 THEN EXIT SUB
    POKE bitmaps&+5,planes%
    plane.ad&=PEEKL(bitmaps&+4+4*current.planes%)
    CALLFreeRaster(plane.ad&,screen.width%,screen.height%)
    CALL RemakeDisplay
END SUB
```

In a review of the Spectre 128 Mac emulator for the ST (*ST/Amiga Format*, Issue 12), it was stated that you need access to a real Mac to get your 'false' Mac working. Is this real Mac permanently needed?

Simon Knight
Toot Baldon, Oxon

Until recently, Hard drives for the Amiga have indeed been rather expensive to say the least. Thankfully, the market does seem to have come to its senses and several cheap units are now available. The best of the bunch is undoubtedly ASAP's Amdrive which is a 40Mb unit for the A500 and A2000 for only £399. ASAP can be contacted at their Scunthorpe HQ on 0724 280222.

You'll be glad to hear that ReadySoft in the States are soon to release a hardware-based Mac emulator called A-Max. A-Mak plugs into the external drive port and, to all intents and purposes, transforms your Amiga into a Mac. This unit performs very well indeed, as you can read on Pages 64-7. A-Max is currently being distributed in this country by Entertainment International who should be contacted on 0268 541126.

The A-MAX unit allows you to connect an Apple disk drive to your Amiga and so, in theory, you shouldn't need access to a Mac.

START AT THE BEGINNING

I recently bought an Amiga 500 for myself and my five-year-old daughter but unfortunately I do not know the first thing about computers.

The manuals that come with the machine seem to assume that I have a basic understanding of computers, but I don't. Can you recommend any good books or packages that will help me?

D James
Plaistow, London

Andy Smith, our games supremo, swears by the 'Penguin Pop-up Guide to Computers' – it taught him everything he knows (but don't let that discourage you!) Seriously though, one of the best introductions we have found to the Amiga actually comes with your machine: the 'Very First' disk that comes with your Amiga provides a very good tutorial which will help you understand the basic operations of your Amiga.

QUESTION BY NUMBERS

After buying my Amiga 500, I've found it to be the most useful and comprehensive computer I have used to date. However, I have the following questions:

1. Do you know of any add-on boards that hold both Workbench and extras in ROM so that they are instantly accessible as soon as I turn on my machine?
2. Do you know of any user groups in the Midlands area who can cope with the needs of a beginner in BASIC and assembler programming?
3. Can you please give me details on how to obtain back issues of *ST/Amiga Format* (your parent magazine).

S Hill
Monkspath, Solihull

Numbering questions seems to be the order of the day and so, not wishing to flaunt tradition, I'll do likewise with my answers.

1. We certainly haven't heard of such a device. The nearest you will come to your requirements are the Kickstart boards that seem to be so popular in the States. These boards allow more than one version of Kickstart to be resident in your machine at the same time.

2. The UK's largest Amiga users' group, the UK AUG, is based in Leicester. The AUG publishes a regular bi-monthly newsletter packed with useful information on all aspects of the Amiga, including BASIC and assembler. Contact Yuri Large at the UK AUG on 0533 550993.

3. Back issues can be obtained from our mail order people in Somerton on 0458 74011.

HELP!

Is your Amiga causing you endless sleepless nights? Do you wake in the middle of the night, sweat pouring from your brow and the words 'AmigaDOS', 'CLI' and 'Copper' flying about in your head? If the answer is 'Yes!' then you definitely have problems! Why not let us solve your Amiga problems? Send your tear-jerkers to: WORKBENCH HELPLINE, AMIGA FORMAT, 4 QUEEN STREET, BATH BA1 1EJ.

One of the most confusing aspects of using the Amiga is that of workbench icons: it seems that only a privileged few really understand this archaic art. Luckily, if you have Workbench 1.3, you will never need to get your hands dirty with all the complex jargon that Amiga technical people have to endure, because Commodore have seen their way clear to provide a handy little tool which takes the pain out of icons.

The wondrous little program in question is the IconX command that you'll find in the 'C' directory of your Workbench 1.3 disk. IconX allows you to run any program from Workbench that can usually only be run from the Command Line Interface (CLI).

An advantage of using IconX is that many programs (*SetKey* for example) need some form of setting up before they can successfully be run. The *SetKey* program is a fine example, as it needs the current keyboard map to be set to usa0 before it can be run. This is easy to do from the CLI but is almost impossible from Workbench. However, this is easily achieved with IconX.

IconX works by reading an ASCII batch file that contains all the commands that you would usually enter at the command line. To use IconX, create a batch file using a standard text editor and then find a data file that has an icon (a *DPaint* saved picture, for example). Copy the associated '.info' file across to your text file, giving it the same filename as your text file plus a '.info' extension (if your text file is called 'JOHN', the icon file would have to be called 'JOHN.info').

Next, using the Workbench menu's 'INFO' option, change the default tool to 'C:ICONX' (if you used a *DPaint* icon then it will probably already contain ':DPaint' in the default tool field) and then select 'SAVE'. Now when you double-click on the icon, IconX will be loaded and it will proceed to execute your batch file. Probably easier than falling off a log!

MEGA BUCKS FOR MEGA TIPS!

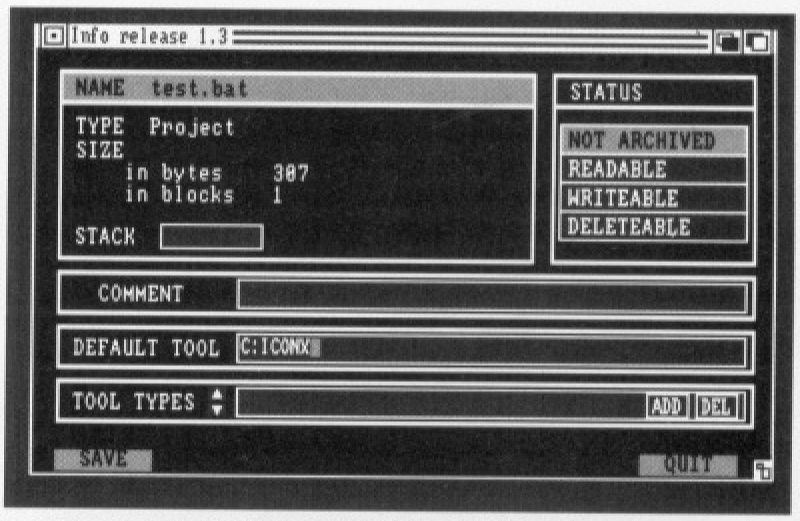
Workbench just wouldn't be Workbench without a regular collection of the very best tips and tricks for your perusal. If you have a groovy little tip-ette, then why not share your wondrous knowledge with your fellow Amiga user by sending it in to Workbench.

"What's it worth?" I hear you ask. How does the prospect of winning £30 sterling appeal to you?

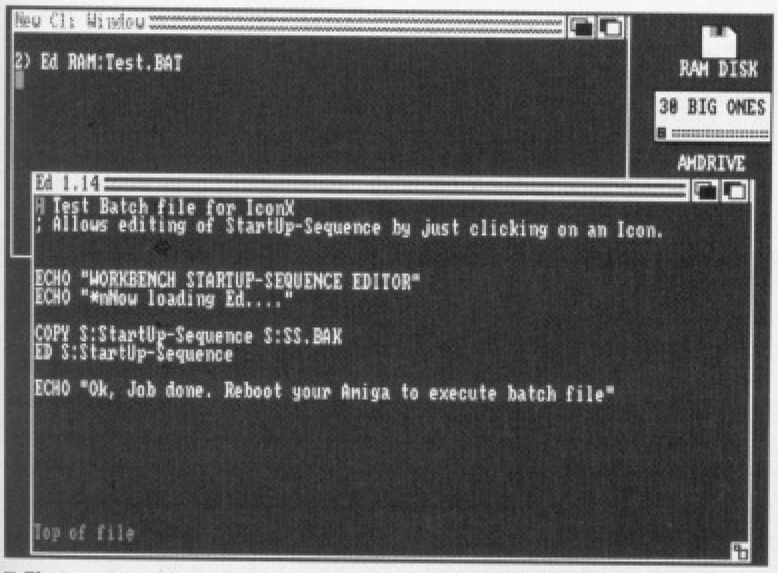
We want tips on absolutely anything: getting the most from a particular software package, hitting the hardware from 68000, AmigaBASIC tips, anything!

Send your tips and tricks to:

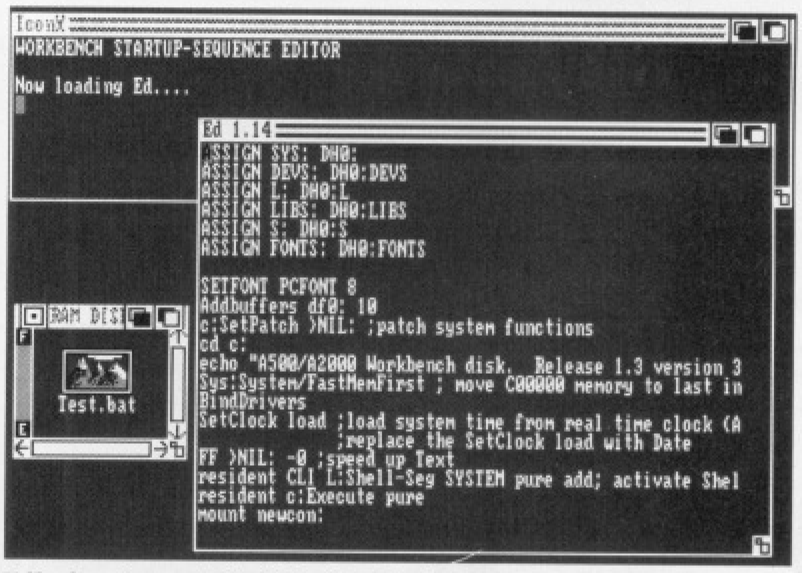
WORKBENCH, AMIGA FORMAT, 4 QUEEN STREET, BATH BA1 1EJ.



■ Just change the 'DEFAULT TOOL' line to 'C:IconX' and you're away.



■ First, create your batch file. Here, we've created a sample batch file that deletes all '.BAK' files from a user-specified directory.

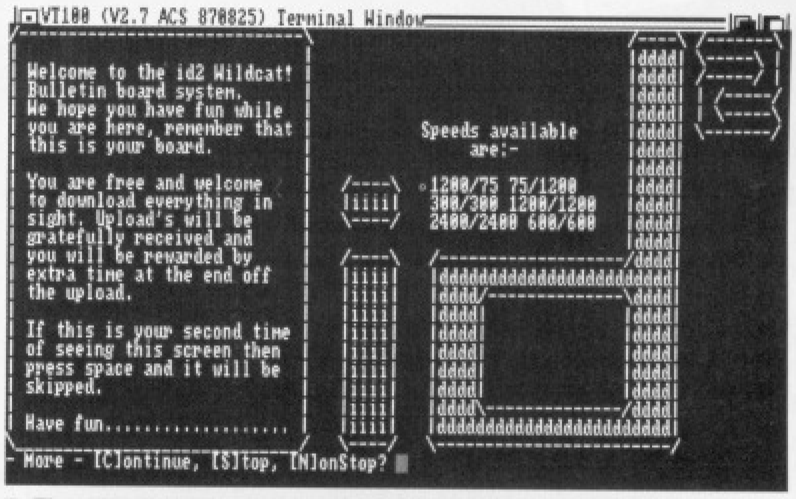


■ Having changed the default tool using the Workbench INFO option, our newly-modified, Iconified batch file is ready and in full swing.

BUSY BBS

For those of you with modems, here's a small selection of bulletin boards that cater for the Amiga user in one form or another. We've been having a great deal of fun recently, running up the company's phone bill and discovering the darker delights of certain boards: which will remain nameless...

Board Name	Phone No.	Speeds	Hours
MABBS	021 444 8972	v21/22/22b/23	24 Hrs
TABBS	0533 550893	v21/22/23	6pm-9am
ID2	0903 700771	v21/22/22b/23	24 Hrs
01 FOR AMIGA	01 377 1358	v21/22/22b/23	5pm-10am
AMIGA BOARD	0268 510495	v21/22/22b	6pm-8am
STABBS	0793 855176	v21/22/23	24 Hrs



■ The ID2 bulletin board is run by a very well-known character: the programmer of Hewson's *Cybernoid* series, Tony Cooper.

PD UPDATE

Quality Amiga software needn't cost an arm and a leg. Take a trip down to the PD libraries and you'll discover a whole brave new world of exciting software. JASON HOLBORN takes a look at the PD 'best-sellers'.

TOP 10 PD

GTS	TITLE
1	**Star Trek (1 Mb)**
2	**Chet Solace Shareware Extravaganza**
3	**TBAG No 16**
4	**Fish No 163**
5	**SACC No 23**
6	**Fish No 185**
7	**TBYB No 12**
8	**TBYB No 2**
9	**TBYB No 11**
10	**Font WorkShop**

Choosing the right software among the vast number of PD disks available can be a difficult task. To help you, *Amiga Format*, in conjunction with GEORGE THOMSON SERVICES, will be bringing you a regular list of the month's Top Ten best-selling disks.

Disk numbers are all very nice, but what do they have to offer? To help you choose the disks that will be of greatest interest to you, this month's PD Update is devoted entirely to our exclusive Top Ten.

STAR TREK

Ever since Firebird released an Atari ST version of their *Star Trek* game, Amiga owners have been crying our for a version for their machine (and rightly so). When it finally arrived, it offered the same fascinating gameplay, fantastic graphics and sound, but better still it was PD.

The Amiga PD version of *Star Trek* was written by an American PD enthusiast using the animation scripting language 'The Director'. The game gives you control of the Starship Enterprise as you journey through space (the final frontier etc). You communicate with the game by issuing commands to the crew of the Enterprise, namely Kirk, Spock, Chekov, Sulu, Uhura and Scotty.

The game comes on three disks and requires at least a megabyte to run. Although not absolutely necessary, a second disk drive is also a definite must if you don't want to suffer from 'Macintosh elbow'. *Star Trek* is available only from George Thompson Services for £8.99.



■ **"OK Spock, you can drive." "The engines won't take it, Cap'n."**

CHET SOLACE SHAREWARE EXTRAVAGANZA

The Chet Solace Shareware Extravaganza is a disk jam-packed with the very best in public domain software. If you only ever intend buying one PD disk, then this should be the one to go for.

All the programs on the disk are crunched using 'MASH', to allow as many programs to fit on the disk as is possible. Whether you're into games, serious applications or just playing around with your Amiga, then Chet Solace has at least one program that will appeal to your tastes.

Programs include the infamous *Pointer Animator*, that gives you mouse pointer a new lease of life. Using *Pointer Animator*, you can design your own animated pointers, or choose from a large collection that are included in a library on the disk.

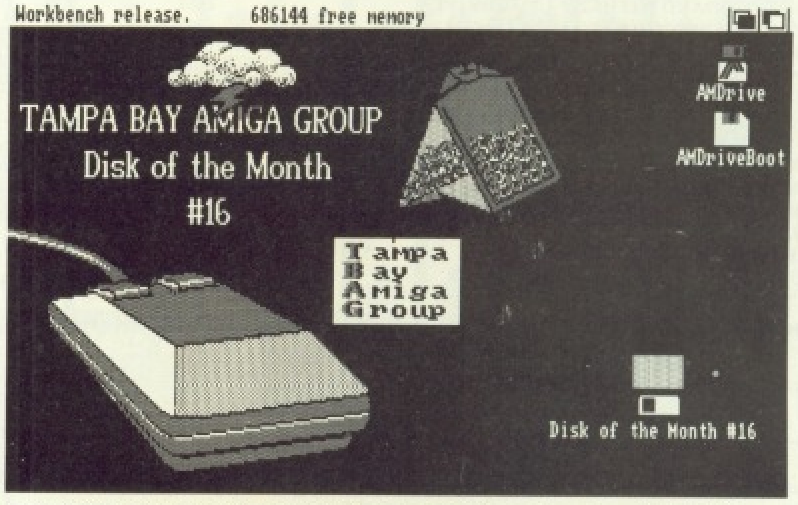
For the techies among you, there's a disk accelerator, a powerful system info display program that lets you peek at the inner workings of your Amiga, and *BlitzFonts*, the highly-regarded text speedup utility. Gameplayers aren't left out either, as the Chet Solace disk also includes a couple of high-quality games: such as Egyptian Run, a very satisfying motor racing game.

TBAG 16

The Tampa Bay collection of disks are renowned not only for content, but also for beautiful presentation: among the best to be found in any collection.

LI'LPAINT – *Li'lPaint* is a mini paint package designed for young children. While it lacks the complexity of *DPaint*, it's a lot of fun.

INTRODUCER – *Introducer* is a nifty little program that allows you to produce your own demos, complete with graphics, digitised music and even the over-used scrolling text.



■ **Presentation is as important as the disk's contents with TBAG.**

XPOPCLI – This upgrade to the popular *PopCLI* utility allows a CLI window to be opened not just on the Workbench screen, but on any screen presently open.

CLI WIZARD 1.2 – *CLI Wizard* is the number one Workbench CLI utility. *CLI Wizard* allows you to perform CLI operations from a friendly intuition-based environment (like *DoTil* on our coverdisk!).

ICONISER – *Iconiser* allows you to 'iconise' any mouse pointer definition and have the results stored into a file. Just double-click on the icon and your mouse pointer will take on a new guise. With Iconiser, you can build up a library of all your extra-special favourite mouse pointers.

'X' SERIES – The 'X' series consists of three of the most popular PD utilities from the famous PD programmer, Steve Tibbett. The three X programs included on this disk are *ScreenX*, *TaskX* and the excellent disk editor, *DiskX*.

PLANET – Here's a great program for all you would-be planetary architects. Planet takes any IFF picture and raps into around a 3D sphere to produce some startling pictures, complete with full light-source shading.

FISH No 163

The Fred Fish collection of disks is probably the most well-known and most popular collection of Amiga PD disks. The collection currently stands at over 200 disks and their contents are highly regarded by both users and software developers alike.

BANK'N – Is your bank account in a mess? Then you need *Bank'n* (banking, geddit!). *Bank'n* is a powerful little personal finance program that will allow you to keep track of your bank accounts. The program is written to take full advantage of the Amiga's windowing environment, Intuition, and is very simple to use.

FIVEINLINE – *FiveInLine* is a fun interpretation of the 'Connect Four' board game that was so popular a few years back. The idea of the game is to get a continuous line of five counters in any direction.

MACHII – *MachII* is a powerful little mouse accelerator program, complete with hot keys. If you've never used one of these programs, then you just don't realise what you've been missing.

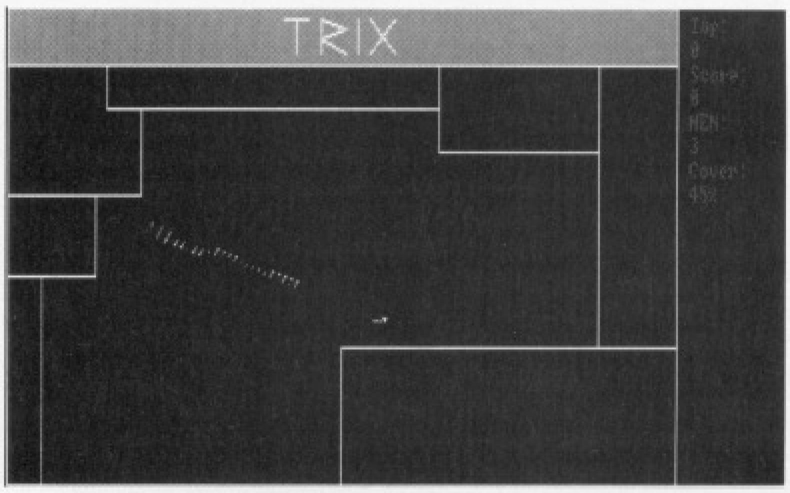
MEMTRACE – Have problems with your memory? (I don't know, I can't remember!) *MemTrace* is a linkable object module that, when called, gives you a complete run down of all memory allocation/deallocation performed by your program.

PCPATCH – If you have access to a PC compatible that uses 3.5 inch disks, you'll probably want to port files across to your Amiga at some time or another. *PCPatch* patches the PCUtils that came on your Extras disk, to allow them to operate with the Amiga's three-and-a-half inch drives.

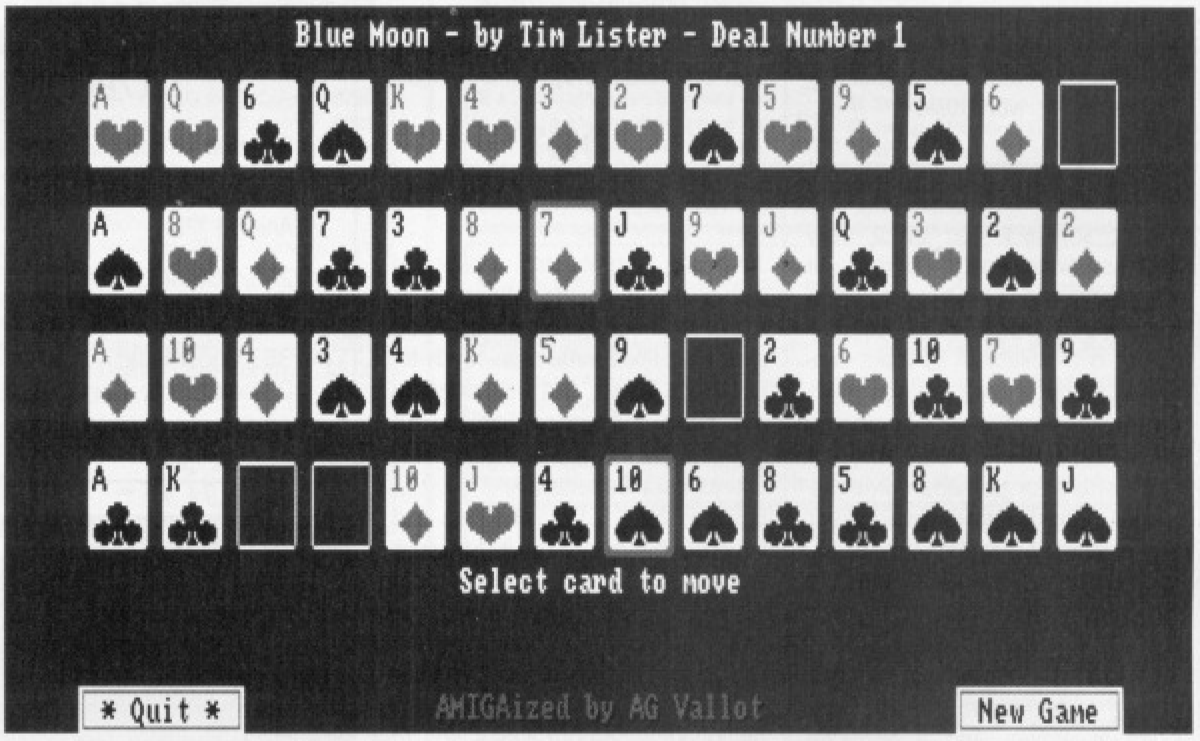
VIEW - The 'official' text reading utility, *More*, as provided on the 1.3 enhancer pack, is rather basic to say the least. *View* is a fast and flashy text-viewing utility that makes an ideal replacement for the official offering.

SACC 23

The Sacramento Amiga Computer Club, like TBAG, pays a great deal of attention not only to a disk's contents, but also to its look. The SACC collection uses a special utility that allows up to eight colours to be used on the Workbench screen, which gives SACC disks a very impressive and individual look.



■ ***Trix*, from SACC 23, is loosely based on the old Dragon 32 game *Qix*.**



■ ***Blue Moon* is an intelligent and enjoyable little 'Solitaire' game from Sacramento ACC disk number 23.**

CARD FILE – *Card File* is a very simple but very useful database program that is written entirely in compiled basic. *Card File's* simplicity allows you to locate large amounts of information with ease.

HERMIT. – Everyone needs a screen grabber! As you've probably noticed when looking through *Amiga Format*, we use them extensively ourselves. Hermit is one of the best and will allow you to snap any standard intuition screen and save it as an IFF file that can be loaded into any of a number of paint packages.

UTILIMASTER – *UtiliMaster* is another of the 'DOS Workbench' programs.

MORSE – Turn any text file into dots and dashes without ever having to learn the Morse code. This program will be of special interest to all HAM radio buffs.

BLUE MOON – *Blue Moon* is an incredibly addictive 'Solitaire' game that will keep you going for hours on end.

TRIX – Anyone remember *QIX? Trix* is an 'Amiga-ised' version of the classic Dragon 32 game (anyone remember those?), in which you must cover the screen by capturing chunks while avoiding the various nasties that are after you.

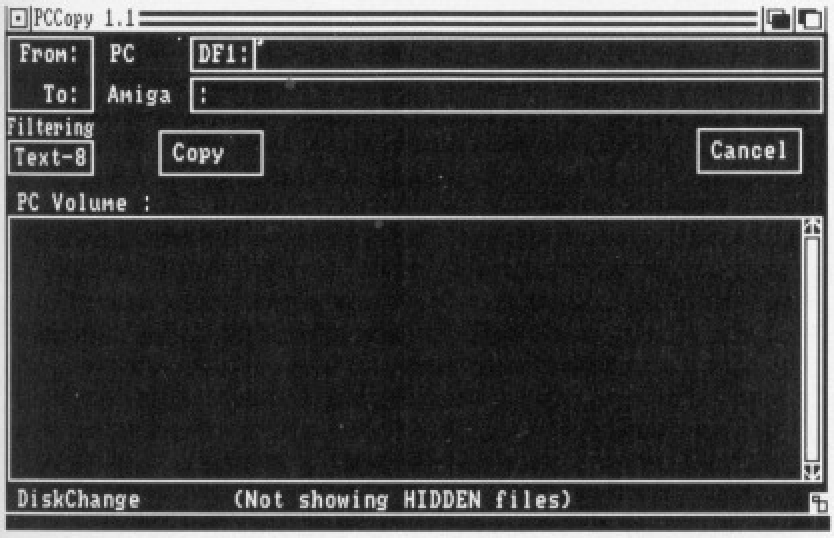
WORD SEARCH – Anyone who enjoys word search puzzles will love this program, because it allows you to construct your own.

WORKBENCH DEMOS – SACC 23 also includes a directory filled to the brim with fun demo programs such as *XWindows, HAMKaleidoScope and Toing!.*

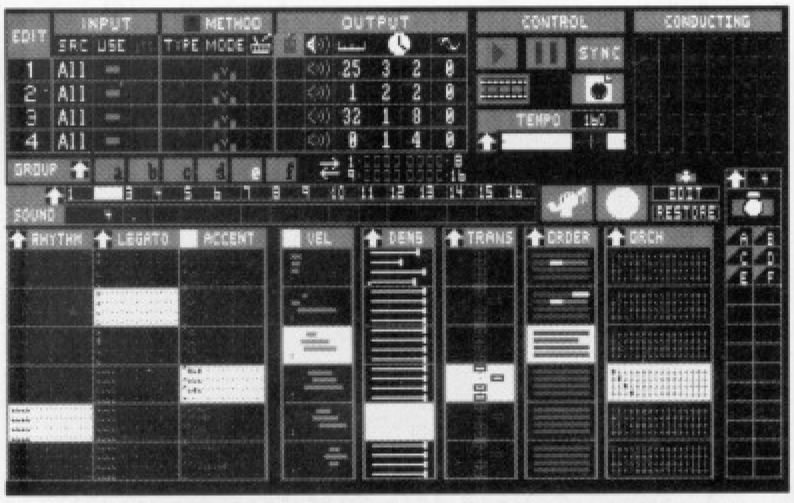
FISH 185

You don't need to be a registered software developer to get your hands on the official IFF documentation disk. Every so often, when an update is released, Commodore also put the disk into the public domain for general distribution to the likes of you and I.

Fish 185 is the latest release from Commodore and it includes full source code for loading, using and saving data in several IFF 'forms', as well as source code demonstrating many other aspects of Amiga programming. The disk also includes several



■ **Porting files across from the PC is made easy with *PC Patch*.**



■ **Composing music made easier than ever before, courtesy of *M*.**

very useful commands that deserve to be added to the C directory of any self-respecting programmer's work disk.

TBYB 12

Buying software can be a risky business when you're forking out something like £100 for a single program. The 'Try Before You Buy' library is a collection of disks containing working demos of commercial programs. With TBYB, you can get a taste of what a program really offers (or perhaps completely ails to offer) before handing over the necessary readies.

TBYB No 12 is a working demo of Gold Disk's acclaimed animation program *MovieSetter*. The demo consists of a run-through, demonstrating the program in action, and a separate demo of a finished animation.

TBYB 2

Try Before You Buy No 2 is a fully working demo of Intelligent Music's popular music composition program *M*. So what's so special about *M*? Well, instead of forcing you to do all the hard work yourself (as is the case with other sequencers), *M* uses artificial intelligence algorithms to produce variations on your existing music.

TBYB 11

Doctor Tobenfeld's keyboard-controlled sequencer is one of the most popular MIDI sequencers within the music industry. You'll find many top groups using *Dr T's KCS* on machines such as the Mac, the PC, the ST and even the Amiga (Heck no! But yes...)

The TBYB demo is the complete, working program minus any form of save function. The *KCS* demo includes several sequences that can be played through either the Amiga sound hardware, or if you have them, external MIDI devices. It allows you to use *KCS* for up to fifteen minutes before the program locks up.

FONT WORKSHOP

Just like music and animation demos, Fonts are also regarded as highly collectable. Font WorkShop is a disk filled with new, ready-to-use fonts which can be added to any disk, and various utilities to make maintaining your font collection as easy as possible.

BLITZ FONTS – Do you often find yourself having to wait for your word processor to catch up with you? If so, then *BlitzFonts* is the answer. *BlitzFonts* speeds up the Amiga text display speed by over six times.

SETFONT – *SetFont* allows you to change the standard Topaz system font for any other of your choice. The Font WorkShop includes both version 1.0 of SetFont, and the newer version 2.0.

FONT LIBRARIAN – Keep that FONTS: directory firmly under control with this handy font librarian.

WHICH FONT – *Which Font* is a tiny trinket which displays all the fonts in the FONTS: directory in all different type style combinations.

TOP 10 DEMOS

A list of top ten PD disks wouldn't be complete without including that special breed of PD, the infamous Amiga Demo disk. With this in mind, we decided that demo disks deserve their own top ten. Every month, as well as the more serious 'Top Ten PD' list, *Amiga Format* in conjunction with Seventeen Bit Software will bring you a list of the month's top-selling demos.

Space, as always, was our final frontier, and so Demo Corner can't be illustrated in full this month. Look out for the next issue of *Amiga Format* for the hottest Amiga demos section to be found on this side of the universe. Seventeen Bit Software can be contacted on 0924 366982.

TOP 10 DEMOS

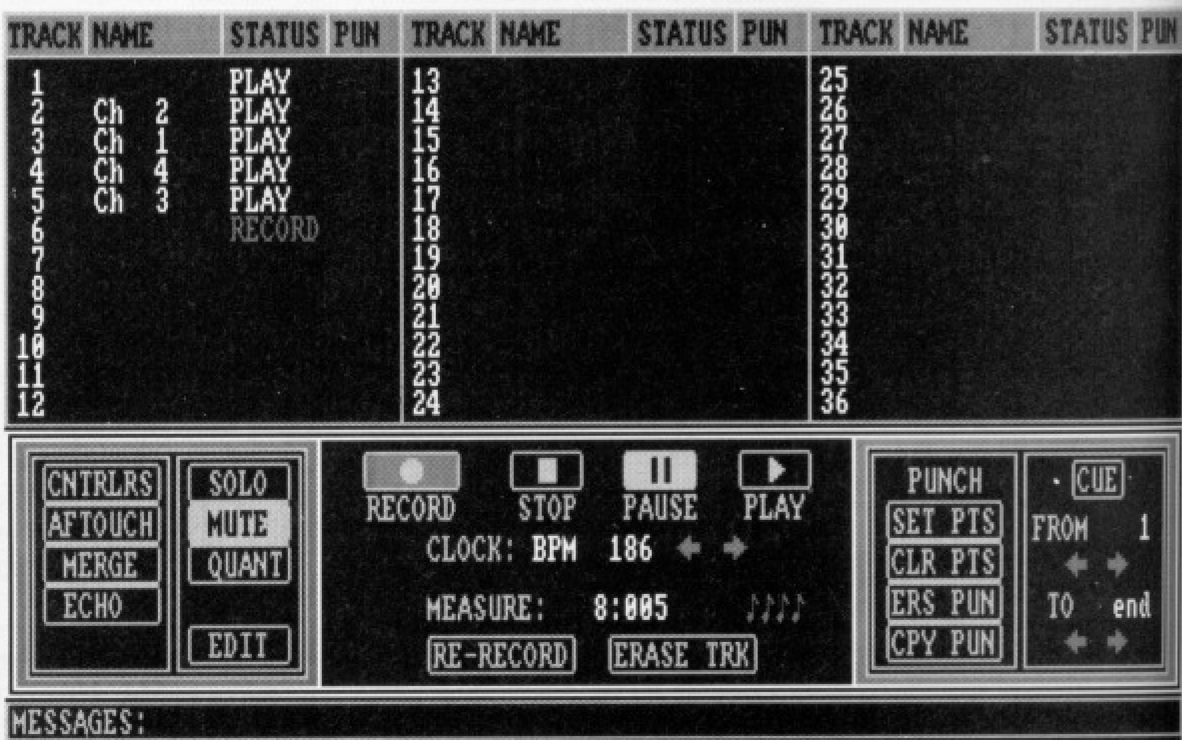
17Bit Disk Nos throughout

1. 255 Walker Demo 2 (1 Mb)
2. 329 Star Trek Dry Dock Anim (1 Mb)
3. 285/286 KML Kylie Minogue Demo (yuk!)
4. 353 GhostWriter Demo Creator
5. 271 Dexion Mega Demo
6. 262 Walker Demo 1
7. 404 Supreme Sounds 1
8. 176 Wild Copper
9. 240 Luxo Teenager (1 Mb)
10. 346 Flash Team Music Demo

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Ray Burt Frost:
0703 785680



■ **Just what the Doctor ordered! *KCS*, the keyboard-controlled sequencer, running on the Amiga.**

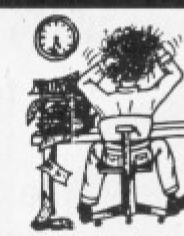
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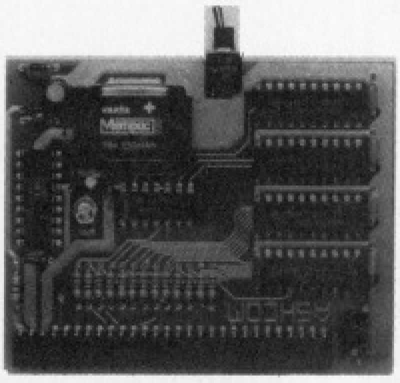
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DISK EXTRA

Every month, we'll bring you a disk filled with the very best from the public domain libraries and from your very own typing-fingers. Whether it's games, graphics, music, serious applications or programming, you're sure to find something on the *Amiga Format* disk that'll appeal to you.

This month's disk kicks off with a demo of Ocean's highly addictive and amusing arcade conversion, *New Zealand Story*. Fun and enjoyment is what *Amiga Format* is all about and, between the utilities for all you tech-heads out there, there's bound to be plenty of stuff to keep fun-loving types happy for hours on end.

THE NEW ZEALAND STORY

PROGRAM: BY OCEAN SOFTWARE
FILES: NEW ZEALAND STORY, NZ_LOADER, NZ_DATA, NZLOADX.PC1

Life has always been an uphill struggle for the Kiwi. What with the Japanese enjoying a succulent Kiwi with their side-salad, and tourists running around trampling all over their precious eggs, it's a wonder there's a single Kiwi still hopping around at all!

In this game, you play the role of a little Kiwi whose fellow Kiwi buddies have been kidnapped by the big, bad, old Sea Walrus (boo, hiss!) Who's going to rescue them from their plight? What do you mean, 'Not me matey!' How could you let those cute little Kiwis suffer at the hands (flippers?) of such a horrible evil Walrus?

You must journey through the Walrus's domain, searching for your imprisoned fellows. Once you've found them, just jump onto their cages and they disappear, leaving your Kiwi buddies free to escape. All is not in your favour, however, as the Walrus obviously isn't going to hand your buddies back on a plate (possibly the bones, though!). Mr Big Bad



■ In this vastly playable game, you take the part of the little yellow Kiwi who must rescue his mates. Hop in the balloon and get to it, quick!

D I S K   E X T R A

NEW ZEALAND STORY



Try your hand at Ocean's latest (and cutest) mega arcade conversion in the comfort of your own home with our exclusive demo. It's up to you to save your Kiwi friends from the evil Sea Walrus and his henchmen.

DOTIL

Does the Amiga's Command Line Interface scare you? *DoTil* gives you the power of DOS without ever having to get your hands dirty with complicated things like keyboards.

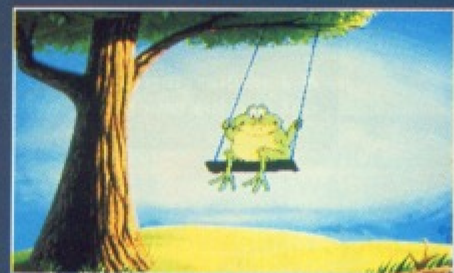
WORKBENCH HACKS

If it's fun you're after, look no further than this collection of jolly little Workbench joke hacks. Every month we'll bring you the silliest little hacks to liven up your Workbench screen.

TRACKMON

Are you having problems 'tracking' down that rogue disk error that always seems to rear its ugly head every time you save an important file? With *TrackMon*, those disk errors will have nowhere to hide.

FROG DEMO



Take a look at what your Amiga is really capable of with this cute little animation. Every month, *Amiga Format* and Seventeen Bit Software will bring you the latest and greatest demos to really show off your Amiga.

VILBM

Here's a great little utility to stick on all your boot disks. If you've ever had a stray picture file but no means of displaying it, then step aside: *Vilbm* is the man for the job!

ART FILES

What do you mean, you can't program but you still want to send something in for the *Amiga Format* coverdisk? Then why not get out your easel and paint us a picture? To kick off, we present the very best in PD art.

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UP FOR GRABS!

We must be insane! But it's true: we want to give you money! All you have to do is write a super-hot program for the Amiga and, if we decide to use it on the *Amiga Format* coverdisk, you could be living it up in style! See Page 90 for details.

ART FILES

PROGRAM: PUBLIC DOMAIN
FILES: GARFIELD, CUBOLA2, ALIENLANDSCAPE

This month, we bring you three of the very best examples of artwork in the public domain. However, in the near future we hope to be showing readers' art in the best possible form: on screen. So, if you have any pictures you're particularly proud of, send us a disk!

In this slot too, we hope to show work by our new Graphics Editor, Brian Larkman. This will back up reviews of packages or products by illustrating them on your own computer screen. Watch out for it!



■ Familiar furry faces: the fat cat and his much-abused pal.



■ This marvellous representation of a lone figure set against an alien landscape is just one of the pieces on display in our Art Gallery: if you're an Amiga artist, send us a piccie!



■ Success! The cute yellow Kiwi rescues one of his buddies, and the cage the friend was trapped in disappears in a puff of smoke.

Walrus has employed the services of a motley crew of henchmen who are out for your blood. Even the teddy bears are out to get you!

You're not a Kiwi who's gonna let a load of weedy teddy bears walk all over you, 'cause you're well hard. To help you in your quest, you carry a bow and arrow, which is just the job to give those nasty teddy bears a taste of their own medicine. Once a baddy is shot, it'll magically turn into a piece of fruit that can be picked up and eaten. Extra weapons such as bombs can also be picked up: these'll really give the Walrus something to chew on! See the full review on Pages 38-9.

GETTING GOING

You can load our exclusive *New Zealand Story* demo by inserting your coverdisk at the 'Insert Workbench' prompt. The demo will then autoload. To play the game, plug a joystick into control port two. Now stop reading and go rescue those Kiwis!

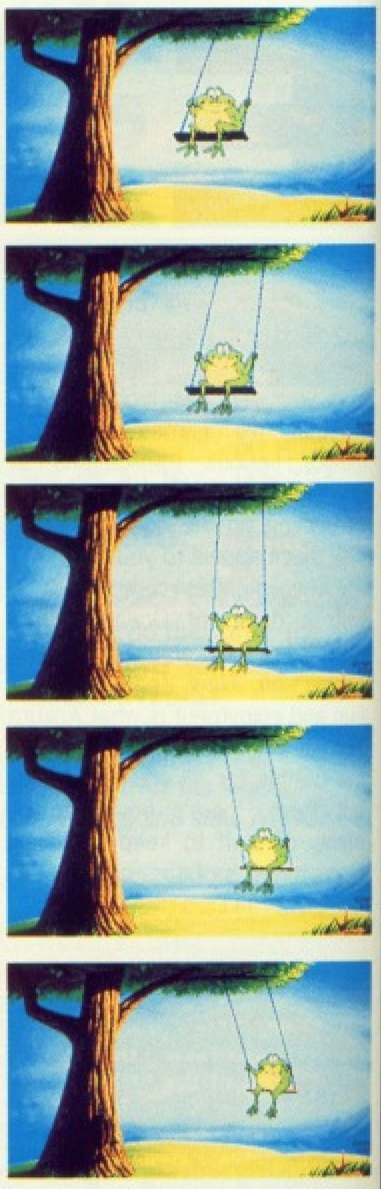
FROG DEMO

PROGRAM: PUBLIC DOMAIN
FILES: FROG ANIMATION, FROG.ANIM, SHOWANIM

Entertainment is what the coverdisk is all about: and so, in conjunction with Seventeen Bit Software, *Amiga Format* will be bringing you an exclusive Amiga demo every month.

What is a demo? Put simply, a demo is a program designed to show off the talents of both the Amiga and the demo's author. This month's demo is an animation of a rather cute frog (can frogs be cute?) enjoying himself in the summer sun. To load it, just double-click on the 'Frog Animation' icon on the Workbench and the demo will load and run.

If you only have a single-drive Amiga, then you'll probably have to swap disks several times: just follow the on-screen requesters and you won't go far wrong. Finally, if you only have 512K of memory, it is best to unplug any external devices and close as many windows on the Workbench as possible.



TRACKMON

PROGRAM: BY MATHEW BURT
FILES: TRACKMON, TRACKMON.DOC

How many times have you ever had that annoying 'VOLUME X HAS A READ/WRITE ERROR' requester pop up onto the screen? Wouldn't it be nice if you could be told precisely where on the disk that error occurred, so that you could hunt it

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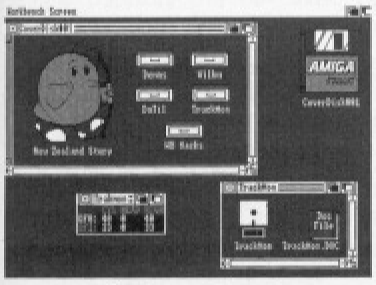
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down with your trusty disk editor? *TrackMon* is a handy little utility program that displays the current track, sector and side being accessed from any floppy drive connected to the system. Using the wonders of multi-tasking, *TrackMon* can be run concurrently



■ ***TrackMon* in action. Here, we only have one drive connected (the internal one). When extra drives are added, the TrackMon window is stretched to accommodate the extra information.**

with any other packages already running (providing they don't turn off multi-tasking, that is!)

GETTING GOING

You can load *TrackMon* by double-clicking on the *TrackMon* icon on the Workbench. Full instructions (do you really need instructions?) are available within the *TrackMon* drawer.

VILBM

PROGRAM: PUBLIC DOMAIN
FILES: VILBM

Everyone knows that the Amiga is a wonderful machine for creating your masterpieces on. With loads of colours, loads of art packages and the kind of screen resolutions that artists demand, the Amiga is the number-one choice for all would-be artists. But once you've created a disk full of works of art, what do you do with them?

Vilbm is a slideshow tool that allows the display of just about any IFF format pictures one after another. Even if your picture is in some strange resolution like overscan, *Vilbm* can handle it with no problems at all.

GETTING GOING

Vilbm can be run in two ways. The first, and probably the simplest, is to use the Amiga's extended selection technique from the Workbench. To display just one picture, click once on the picture file that you wish to view, then hold the [SHIFT] key down and double-click on the *Vilbm* icon. After a few seconds, the picture will be displayed.

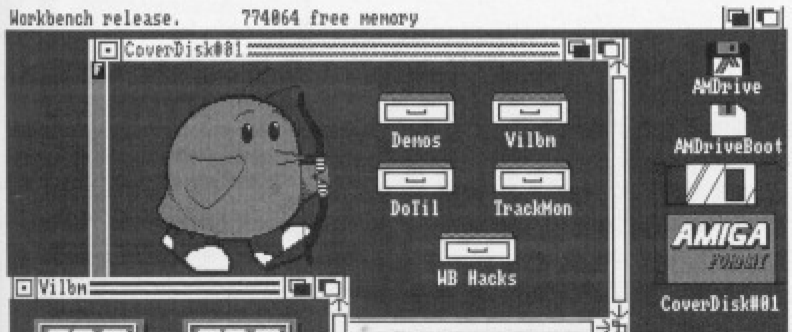
If you want to view several pictures, use the same method as detailed above, but instead click on each picture icon in turn (don't forget to keep the [SHIFT] key depressed) before finally double-clicking on the *Vilbm* icon.

The second method of running Vilbm is from the CLI. To view three pictures called 'Fred1', 'Fred2' and 'Fred3', all you have to do is to enter 'VILBM FRED1 FRED2 FRED3' and then press [RETURN]. To advance through each picture, just click the left mouse-button. Once all pictures have been displayed, *Vilbm* will return you to the CLI prompt (or the Workbench if you used the first method).

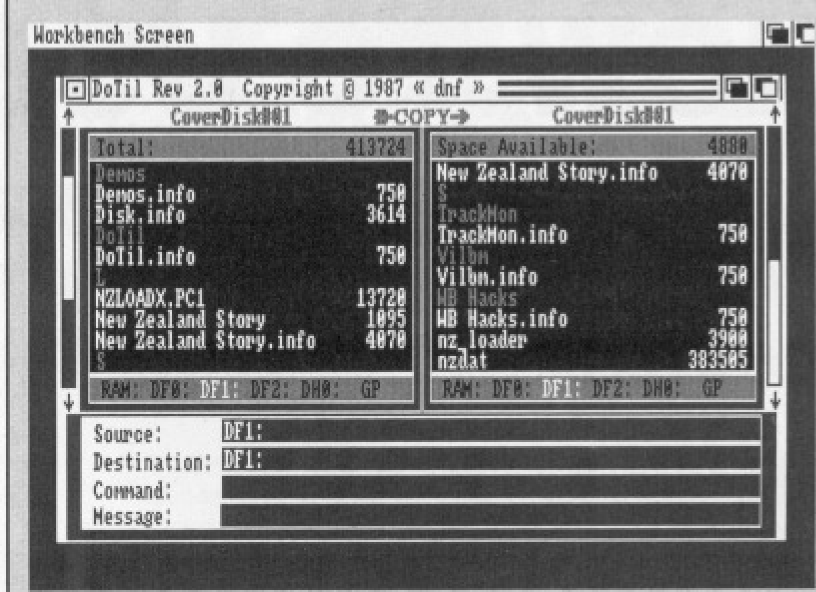
WORKBENCH HACKS

PROGRAM: PUBLIC DOMAIN
FILES: SCAT!, VACBENCH, HACKS.DOC

So you think we're going to explain what these customers do, don't you? Well think again! Workbench Hacks are fun little programs that are at their best when you haven't got a clue what they do. To run this month's Hacks, double-click on the associated icon, then sit back and play!



■ **This has to be one of the most useful little utilities around. All you have to do is select the picture files, and *Vilbm* will display them.**



■ **The main screen of *DoTil* displaying the source and destinations windows in which all file control operations are usually carried out.**

DOTIL

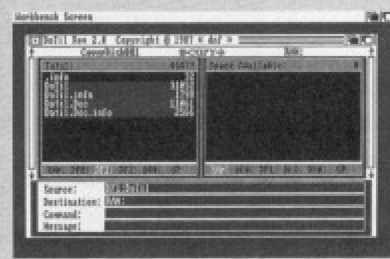
PROGRAM: PUBLIC DOMAIN
FILES: DOTIL, DOTIL.DOC

OK, confessions time. How many of you have tried to learn the Amiga's Command Line Interface, only to find it almost totally incomprehensible? Sounds familiar, doesn't it! If you are struggling to get to grips with the inner workings of AmigaDOS, why bother? You can use *DoTil* instead!

DoTil is a very useful utility that deserves a place on any self-respecting Workbench disk. *DoTil* allows you to carry out practically any task that you could previously only achieve through CLI from the Workbench environment. Instead of having to type in all those complicated (and difficult to remember) DOS commands, all you have to do is to point and click: it really is as simple as that! With *DoTil*, you can:

VIEW DIRECTORIES – Even if a disk contains practically no icons at all, with *DoTil* you can travel the directories, viewing those hidden files with ease. No more will you be hunting through a disk for that mysterious file, only to find that it can't be found because someone forgot to give it an associated icon file.

FILE MANAGEMENT – Even if a file doesn't have an icon, there's no hiding from *DoTil*'s extensive array of file management tools. Using multiple selection, you can copy, delete, rename or view any file on any disk. AmigaDOS has never been so simple.



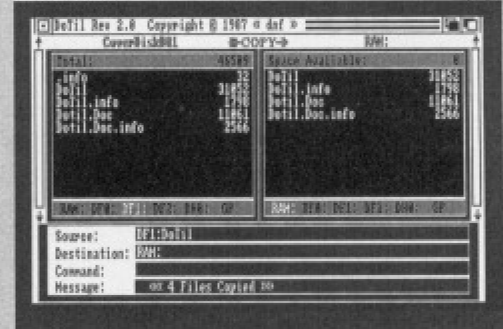
■ **What do you do if you want to copy all files, including all those without icons, to the RAM disk? Use *DoTil* of course! Here we've clicked on the files that we are planning to copy across.**



■ **Next, just bring up the pull-down menu containing the COPY option, select it and you're away.**

GETTING GOING

You can load *DoTil* from the CLI... er, by double-clicking on the *DoTil* icon on the Workbench. Full instructions on getting the most from *DoTil* are available within the *DoTil* drawer.



■ **Et voila, our files have been successfully copied. Now you've got no excuse for not being able to back up the Coverdisk!**

HOW TO USE THIS DISK

Before using your Amiga Format disk, you should make a back-up of the master disk as soon as possible. This is very important!

BACKING UP YOUR DISK

Copying the disk may sound like a complicated task suitable for techno-buffs only, but it is surprisingly simple provided you read the following instructions carefully:

1. First, turn on your machine and load Workbench. Once the Workbench screen appears and the disk-drive light goes out, remove your Workbench disk and insert our cover disk.

2. Next, **click once** on the coverdisk icon and then press the right mouse-button and the Workbench menus will appear. Now, while **keeping the right mouse-button depressed** (you can cheer it up afterwards!), move the mouse pointer over to the 'Workbench' heading and a menu will drop down. Move the mouse pointer over the 'duplicate' menu option and then press the left mouse-button.

3. After a few seconds' disk access, the Workbench DiskCopy tool will be loaded and run. Now just follow the on-screen prompts and your *Amiga Format* coverdisk will be copied to a backup disk. When the machine asks for the destination, insert your blank disk into the drive. Further instructions can be found in the user's guide that comes with your Amiga.

USING THE PROGRAMS

All the programs on the *Amiga Format* disk are specially set up to make them as easy to use as possible. If you can use the Amiga's Workbench then you can use our coverdisk! If you do have problems with a program, full instructions on loading and using the programs are included in the disk pages and these should get you up and running. If you still have problems, you should read the documentation file (.DOC) that is included with every program.

To run any of the programs on this month's coverdisk, all you have to do is follow a very simple procedure. Unless specified differently within the disk pages, just double-click on the program's icon on the Workbench and the program will load and run. Full details on how to use the programs once they have run are included with the disk pages and as a text file accompanying the program.

To display a documentation file, just double-click on the appropriate .DOC file to be viewed and a window will open containing the file's contents. Pressing the space bar will advance a page at a time.

COPYING THE DISK

Unless specifically stated, the programs on the cover disk are not in the public domain and the copyright remains with the author. Selling or distributing these programs without the author's permission is against the laws of copyright.

HAVING PROBLEMS WITH THE DISK?

We have done our best to check that the programs on the *Amiga Format* coverdisk are simple to use, error-free and have no known viruses. However, we cannot normally answer telephone queries on using the software, and we do not accept liability for any consequences of using the programs.

If your *Amiga Format* disk is faulty – and out of the tens of thousands duplicated, some are unfortunately bound to be – you should send it back for a free replacement within a month of the cover date to: AMIGA FORMAT AUGUST DISK, DISCOPY LABS, UNIT A, WEST MARCH, LONDON ROAD, DAVENTRY, NORTHANTS, NN11 4SA.

If your Amiga refuses to accept the disk, try using the DISKDOCTOR utility on your Commodore Workbench disk to rescue it before sending it off for a replacement. Full details of DiskDoctor can be found in the user's manual that came with your machine.

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If you've got any programs for the Amiga which you think other readers would find useful, interesting or amusing, we'd like to know about them.
1. Make sure your program is foolproof to use.
2. Create a file called README.DOC on the disk which explains exactly how to use your program.
3. Fill in this form, sign it, and send it without delay to:
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GAME BUSTERS

These computer games can be pretty tough to beat sometimes, so often there's only one thing left to do: cheat! That's where Gamebusters comes in. Here you'll find cheats, hints and tips for all the latest games that you may have problems with.

THE REAL GHOSTBUSTERS

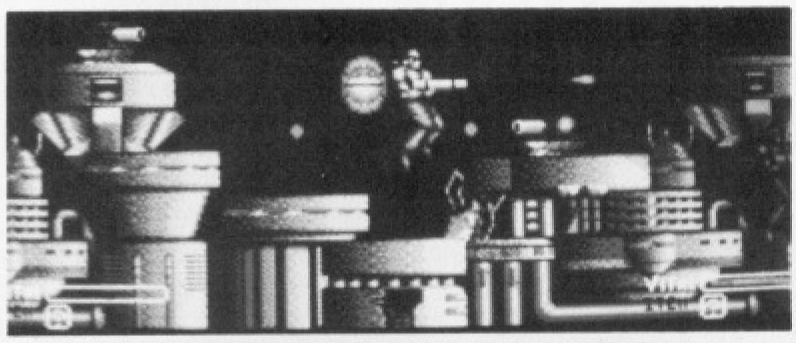
Gain infinite lives simply by typing this listing into Amiga Basic, saving it for future use, and then inserting the game disk before running it.

```
10 DIM CODE%(255)
```



```
20 FOR N=0 TO 95
30 READ A$:A=VAL("&H"+A$)
40 CODE%(N)=A
50 NEXT N
60 CHEAT=VARPTR(CODE%(0))
70 CALL CHEAT
80 REM TYPE IN THIS LISTING AND SAVE FOR FUTURE USE
90 REM INSERT GHOSTBUSTERS DISK AND RUN THIS PROGRAM
100 REM GAME SHOULD LOAD AS NORMAL BUT WITH INFINTE LIVES
110 DATA 70FF,2C78,0004,4EAE,FEB6,2200,5280,6772
120 DATA 4BFA,00EE,3AFC,0400,429D,3AC1,93C9,4EAE
130 DATA FEDA,2ACO,2A8D,2B4D,0008,589D,4295,4BFA
140 DATA 0090,1ABC,0005,3B7C,0030,000A,41ED,0038
150 DATA 2B48,0006,41FA,0060,7000,7200,43FA,006A
160 DATA 4EAE,FE44,4A80,6600,002A,700C,99CC,6100
170 DATA 0024,7002,49F9,0007,0000,6100,0018,297C
180 DATA 31FC,4A54,00AE,297C,57E0,6004,00B2,4EEC
190 DATA 000C,4E75,43FA,0032,3340,001C,234C,0028
200 DATA 42A9,002C,237C,0000,0400,0024,337C,0030
210 DATA 0012,4EEE,FE38,7472,6163,6B64,6973,6B2E
220 DATA 6465,7669,6365,0000,0000,0000,0000,0000
```

Matthew and Peter Warner, Basildon.



FORGOTTEN WORLDS

Don't bother fighting your way through all those nasties, simply type ARC and hit the HELP key on the title screen, then press S to go straight to the shop and N to skip to the next level. Simple when you know how!

J Garrett, Worcester.

THUNDERBLADE

Type in CRASH on the high score table and you'll find you're able to skip levels simply by pressing the HELP key.

Allan Jensen, Denmark.

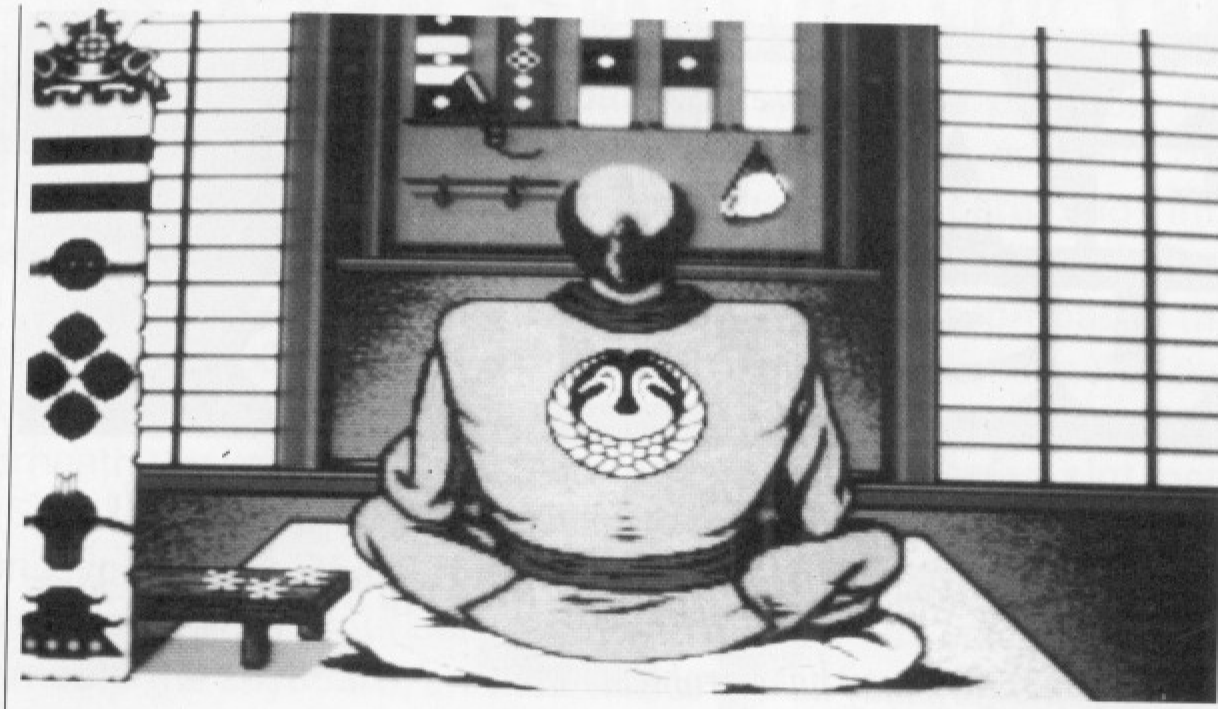
LORDS OF THE RISING SUN

Try using these handy hints to get more from the game.

YOSHITSUNE

Yoshitsune is more skilled at fighting than Yoritomo, so at the start of the game make sure you have almost full strength and men before you try attacking anything. Your main objective now, because you are near maximum status, is to deal with your brother and to capture enemy castles. If you take over enemy castles, the enemy troops will have nowhere to recruit more men and all your brother's men and land is yours if he dies.





Your next job is to try and secure the eastern half of the Island. To do this, take over all the castles and destroy or recruit all the armies on that side of the Island. Now concentrate on the rest of the Island. In Edo try to leave a General with the least siege abilities as he probably won't need to siege castles anymore. Remember, one General will do and if the General is at Edo, Nagoya will be easier to storm by boat. If you can send a General from Akita to Matsue via Aikawa you will have a good base from which you can attack the Western castles. Once you have complete control over the main Island then you should be able to wipe out the remaining four castles on the two smaller Islands. Don't go for these unless you have a very firm base otherwise you will have to trek all the way back should a range trooper take over a castle.

YORITOMO

A great politician and strategist but try to take Edo first because it's the only castle you won't have to lay siege to to take. If you're lucky though, you may reach Toyama or Nigata before anyone else. The same rules now apply to Yoritomo as with Yoshitsune: wait until you nearly have a full army before attacking. Be careful if you get into any fights, because you have a low battle skill and a smaller army with higher skill can easily wipe you out. At the beginning of the game try to avoid taking risks and instead concentrate on improving your skills. If you ever fight your brother and survive long enough, chase him on horseback, because if you slay him things can change dramatically.

IN GENERAL

Participate in battles as you tend to lose more men if you don't. Chasing the General on horseback often leads to early victory as you can wipe out armies in one battle instead of at the end of the game, and once you're confident it's possible to do it every time: but do not engage in the siege sequence, because losing can be costly. The most important factor in battle is strength and long journeys can weary your troops, so ensure they have plenty of rest before a battle. An army coming by sea will be tired but faster and more flexible, so meet them on the shore and the advantage will be with your men.

Whichever character you've chosen, try to isolate the rest of the island so you're more able to concentrate on attacking the enemy and won't have to worry abaout defensive manoeuveres and precautions: but watch out for the enemy trying to out-flank you. The islands will all be bitterly fought over, so ensure that your troops have confident strength before attacking. The islands are well worth going for though, because they are ideal resting places for a tired force and good Generals can interchange their armies from island to mainland without meeting too many problems.

The key to early victory is to recruit many more armies than your enemy, thus trapping him in a spider's web and gradually wearing him down (of course he can always try the same tactic on you, so beware). It's important to have a strong hold on North and South Japan, as a rogue force can wreak havoc and open up flanks, causing all sorts of problems. If you're unsure of your force, avoid battles because he who fights and runs away really does live to fight another day. Ninja assassins may sound appealing, but only resort to them as a last resort and don't send them on too hard a mission because they might turn back and recognise you as the enemy!

Simon Liu, Morden

And talking of *Lords of the Rising Sun*, a small typographical error in the manual may have left a few hard drive owners wondering what was going on. You can't install the British version of the game on your hard drive, unless you follow these simple steps:

1. Copy all files on both disks to your chosen directory (e.g. copy df0: dh0: Lords all)
2. Edit the start-up sequence file to read:
"assign RisingSun1: dh0:Lords"
"assign RisingSun2: dh0:Lords"
"run main"
3. Execute the above file, making sure that your ORIGINAL disk 1 is in df0:, as the program is protected and checks for the original before loading.

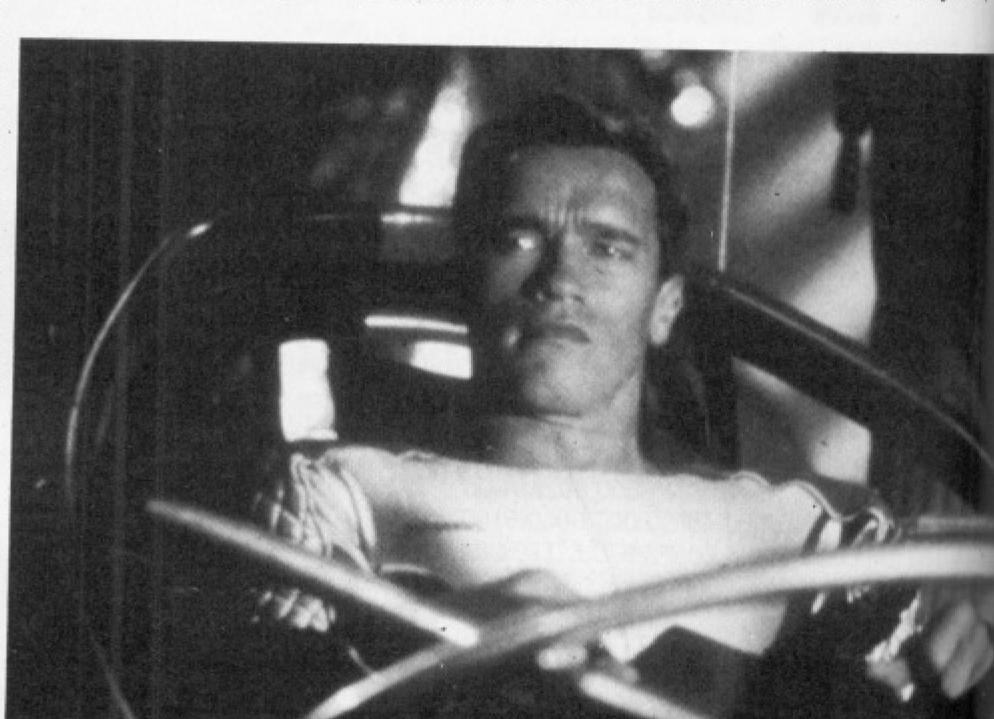
Thanks go to Iain Mackenzie for that tip.

RUNNING MAN

The first three levels solved for you – next month we'll give you the solutions to the last two – so watch this space!

LEVEL ONE

A simple run and jump will get you onto the platform. If you have any problems with dogs kick or punch them: the best way to do this is to stand still with the fire button pressed, and move the joystick left-right depending on where the dog is coming from. Each kick of the dog rewards you with a small amount of extra energy. To jump the cravass, you'll have to have a running start so run towards the steps, jump up and run backwards and forwards (until you're confident) and jump between the first two black slants (indicated by the red arrows). Keep pushing the joystick up diagonally even when jumping to the first icicle as you



will immediately do a second jump to land on the other side.

Once across, keep running and jump the dogs, because hanging around to kick them could see you getting hit by an exploding puck at Subzero. Try to avoid Subzero and any more dogs until you get to the camera at the end of the level. Walk a little away from the camera (as indicated by the green arrow) and wait for Subzero to appear. When he does, he'll fire a puck straight at you so prepare to jump into the air. Subzero will then run behind you and before he has time to fire another, kick or punch him as he comes towards you – keep this up and you'll kill him, then you can exit as quickly as possible because hanging around in the cold is not a good idea.

LEVEL TWO

Run along and jump onto the boxes avoiding any dogs. The dogs can't climb onto the boxes so you're safe there. the brick is no use, so don't bother picking it up. Jump over the falling lighting and onto the boxes, on the other side is the lead piping, which you should pick up. Keep running until you reach the medical kit, which will replenish all your lost energy. Crawl through the rusty pipe and over the boxes and run along until you meet Buzzsaw. Be careful to avoid the many dogs that are here. You cannot jump over Buzzsaw when he's pointing the saw at you, but you can at any other time.

Use your lead piping on forward diagonals (used for punching) and it will slash out. Once you've lunged at Buzzsaw immediately get into the crawling position – he can't get you when you're crawling – and crawl past him. Beware though, because the dogs can still get you. When he's standing over you, he'll start to move in the opposite direction to you: quickly stand up and when he runs towards you hit him and get back into the crawl position. Do this until you've killed him and then run off the screen.

LEVEL THREE

You'll realise now that you haven't got your weapon, find the club on the first screen and use this to dispose of Dynamo, who is the toughest opponent in the game. Run to the blocks (there will be a dog either following you or coming at you, so avoid it) and jump

THE WINNERS GUIDE TO KICK OFF

It's fast and furious, it's the best football game there is, and despite what the Olympic movement would have us believe it's not taking part that matters: it's winning. In the interests of establishing an all-conquering squad of Amiga footie players, here are the Format team's definitive tips to winning at *Kick Off*.

THE KICK OFF

An excellent chance to score within the first few seconds of a restart. Trap the ball, charge straight up the pitch and shoot as you approach the penalty spot: there is a good chance it will go in. The computer teams are wise to this tactic, but they will frequently foul you on the way so the run can still be continued and a penalty may even result. If someone uses this tactic against you the best thing to do is to intercept the attacker: don't just chase him, wait for control to switch to a defender in his path and then move up the pitch towards him to tackle. However, because everything happens so fast it is frequently a matter of resorting to hacking the attacker mercilessly to the ground. Brutally effective.

CORNERS

Another good scoring chance. There are two main methods for putting the ball in the net. Either pull the ball back into the middle of the penalty area where a waiting player can blast it home, or float it across the goalmouth for an incoming forward to nudge in: you can even score directly this way. Never hit the ball low to the near post because the 'keeper will always collect it. Also beware of lofting the ball deep into the area because in this position it is much harder to control.

Defending against corners is difficult. You have to spot quickly what sort of kick is being taken and then get someone to the ball to clear it. The most dangerous kick is the in-swinger across the goal which you are likely to put in your own net. Just hope everyone misses and it goes past.

PENALTIES

A 90% success rate can be achieved by following the following instructions. Wait until the arrow is approaching the middle point and then give a sharp tap on the fire button. Anything more than the shortest of taps will send the ball over the bar. If you leave shooting until the arrow has reached the middle or is going away, the ball will almost certainly go wide.

THROW-INS

Don't hack the ball straight upfield from these because it very often goes straight out again. Angle the ball infield before kicking it. Alternatively, dribble the ball, although this is more hazardous because there are always opposition players in close attendance at throw-ins.

PASSING AND SHOOTING

There are two main methods for kicking the ball: the kick-on-the-run and the trap-and-kick. The KOTR is quicker and goes further, but it is very hard to get it to go anywhere but in the direction you've been running, although 45, 90 and even 180 degree changes of direction are possible with a quick change of joystick angle just as the ball is kicked. This is also the method for changing direction while dribbling.

To TAK the fire button has to be pressed down just before the player runs into the ball and held. He can then swivel round freely and kick the ball in any direction by releasing the button: theoretically, it will be passed to another player. This is particularly handy if you are running in the wrong direction and when used well can result in very accurate and satisfyingly safe passing manoeuvres.

DRIBBLING

Because the ball is not 'stuck' to the end of your boot, dribbling is an art that has to be learnt. Running in a straight line is easy, but changing direction isn't. 45 degree changes are possible by hitting the diagonal at the right moment. Anything else requires a quick side-step or detour around the ball so that it can be approached from another angle. It sounds difficult but with practice you get used to the timing of the actual contacts with the ball while dribbling, so that changes of direction can be made extremely quickly and easily.

TACKLING

The easiest method of dispossessing someone on the ball is just to run into them. However, if you're approaching from behind and they are getting ever nearer the goal, have no hesitation in hacking them down: as long as it is outside the penalty area. Professional fouls are best used when the ref is easy-going or better still blind.

REFEREES

Pay attention early on to how the ref reacts to fouls. If he is whistle-happy then try to dribble with the ball a lot. Hopefully several of the opposition will get sent off or give away penalties. If he does not give yellow cards straight away, then feel free to hack the opposition down whenever necessary.



GOAL KICKS

It's crucial to learn how to win the ball from goal kicks and again there are two main methods. Either time the run to collide with the ball just as it bounces, allowing you to dribble away immediately, or hit the fire button with the joystick centred to leap into the air and head the ball on. The second tactic can gain valuable ground quickly. If these prove too difficult then try to trap the ball when it comes down by holding down the fire button.

HUMAN OPPONENTS

They are very susceptible to the charge straight up the pitch: always go for it. Try to trap the ball in the penalty area and wait for your panicking opponent to hack you down, giving a penalty. It works a treat, and will really annoy them too.

COMPUTER OPPONENTS

Possession is the key: give them too many chances and they will always score. Go for 4-4-2 or 5-3-2 formations so that you have plenty of defensive and midfield control. 4-3-3 is pretty useless and 4-2-4 is only for the brave who reckon they can out-play the computer: a tall order. The ultimate challenge is the USSR team because they are so fast. The trick to remember with them is not to futilely chase the ball-carrier with your (generally slower) players, but to wait for control to switch to the player in his path, then clear from the tackle.

up and over. Here you'll find a medi-pack to restore lost energy. Run past the first light bulb and then start walking. Chances are you'll meet a dog either between the lightbulbs or just as Dynamo appears on the screen.

Dynamo appears when the red X is next to the second light bulb. As soon as he appears, he'll fire at you: you can duck to avoid the blasts, but he can fire at duck and crawl height too. The only way to dispose of Dynamo is get to the club. Unfortunately, every time Dynamo sees you he fires at you. When he first appears walk about 4-5 paces away from him then turn round and run toward him: he should now be in his car, which you can jump over.

Once you've made it to the club, pick it up and now whenever Dynamo fires at you duck until the bolt is over your head, then stand up and walk one step towards him. Keep this up until you're in hitting distance, and if your timing's right you should be able to polish him off after a few blows. This is a lot easier said than done, especially as dogs tend to come after you just when you're about to whop Dynamo. Keep at it and get the timing right, and you'll manage it: then just walk off the screen and into the next level...

Mark Stenning, Brighton.

WIN! WIN! WIN!

OK hands up who would like **£50** worth of software? **For free!** Of course you would, and you can have it too. All you have to do is spend some time playing your favourite game and then send your maps, tips and pokes to Amiga Format Gamebusters, 4 Queen St, Bath BA1 1EJ. If we print your tip (the newer the game, the more likely you are to get into print) then you stand a good chance of scooping one of **THREE £50 prizes**: so get playing and get those tips in. This month, Matthew and Peter Warner, Simon Liu and Mark Stenning pick up the prizes and will soon be playing away on all that juicy **FREE** software. Jealous? Well, you know what to do about it!

MILLENIUM 2.2

How to colonise the solar system and still return to Earth safe an' all that...

Electric Dreams' smart strategy game *Millennium 2.2* might have one or two of you somewhat perplexed, if not completely stuck. If so, read on...

The first thing to do is activate the Mk I Solagen which is already in stock in the Energy module. Once this is up and running, it's simply a question of initiating the Resource complex to get enough material to build a Mk II. Once the Mk II has been researched, you'll find that there isn't enough energy to build the thing. Turn off the Resource complex, build the Mk II and then turn it back on again. After that, it's simply a matter of researching and building increasingly powerful Solagens up to the Mk X. Don't worry about the failed Mk III. Simply use the Mk II which should be in store and repeat the process.

Once the base is operating properly, you have a number of options. But before many of the items can be built, extra minerals are needed. To get these quickly and simply, research and build a small fleet of Grazers. These can continually ferry small amounts of much-needed ores from the asteroid field.

The central part of the game focuses on the growth and expansion of the moon and its colonies. This is a matter of finding which moons or planets provide the best sources of raw materials, setting up colonies and shuttling to and from these. The colonies provide minerals and ores, while the Moonbase sends replacement Solagens, Fighters and Orbital Lasers.

The latter equipment – as if you hadn't already discovered – is employed in the continual fending off of Martian attacks. Orbital Lasers are very effective, but can only be used once: obviously it's best to keep a reasonable store in each colony and the Moonbase (later on in the game you'll need a full complement of lasers on the moon, so keep building).

To find more information about the Solar System, continually build and launch probes. However, don't bother sending them to the inner planets, Mars and its moons, Jupiter and its moons, or the asteroid belt, since they either get destroyed or yield no useful information.

The key to completing the game is Triton: probe, research and colonise as soon as possible, for reasons which will become clear later on.

When reports of Martian flu come in, research and produce the required vaccine. Don't just ferry it to the infected base, though, but produce enough for all colonies and the moon base since the strain is virulent and soon spreads throughout the inhabited worlds.

At some point you will be informed of the crashed Martian Fleet Carrier, and the details beamed back to the Moonbase. Research this immediately: it's important that one be built. However, you'll find it takes rather a lot of materials!

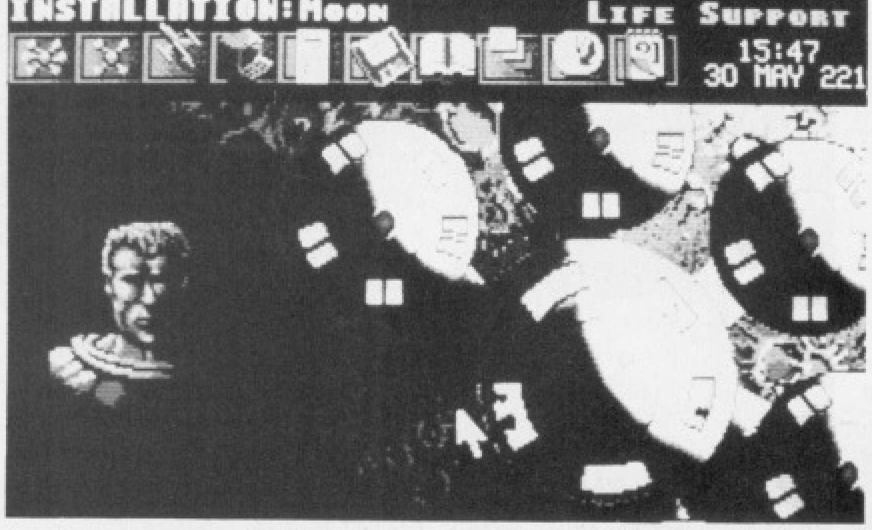
Once the Fleet Carrier is built, fill it full of fighters and head for Mars. While in orbit the Carrier is attacked by a fleet of Martians, at which point all the fighters should be launched (lower right icon on the left hand side). A ferocious, if slightly tedious, battle ensues but the Martians should eventually surrender.

After this, Mars can be colonised in the usual way. The colonists then find plans of a Martian terraforming machine capable of making the Earth's air breathable. Again, this should be researched and built ASAP. However, you'll find that the stock of chromium is pretty much nil. This is where Triton comes in: you should, by now, have enough chromium collected for shuttling back to the moon.

Once the Terraformer is built, you'll find that even the Fleet Carrier isn't large enough to carry it to Earth. Don't despair: the researchers redesign the ship so that the terraformer just fits in. The newly customised Juggernaut can now take the Terraformer to Earth, although it cannot take off again.

While the Earth is being terraformed, previous reports of a huge Martian fleet prove to be true, when the Moonbase is attacked by over 200 fighters! At this point the stockpile of Orbital Lasers – up to 16 – should be used up, prior to launching your fighters. Even after all this, it stands a very good chance that the attack cannot be repelled completely, and the Moonbase still gets duffed up a treat. In this case, you'll find that the moonbase's population has been reduced to zero. Don't panic: send a couple of Carracks to the moon and dismantle them. The population increases by 80 for every Carrack destroyed.

Having survived the Martians' final assault, it should now be just a question of time before good old Terra is colonisable. In the mean time all your colonies start declaring independence. As long as you have a good stock of materials, don't worry about it. When a report comes in stating that Earth is once more in a habitable state, build the necessary SIOS, send it to Earth and then groan loudly at the naff end sequence. ■



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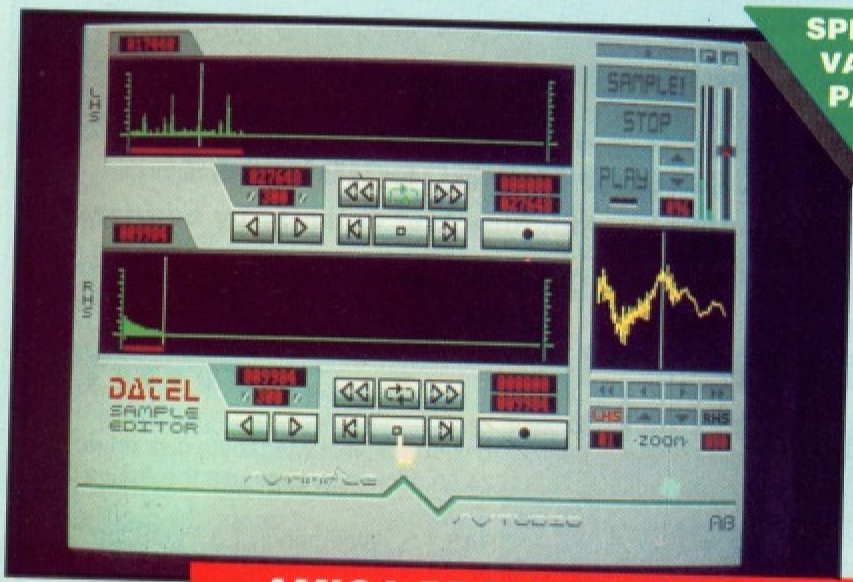
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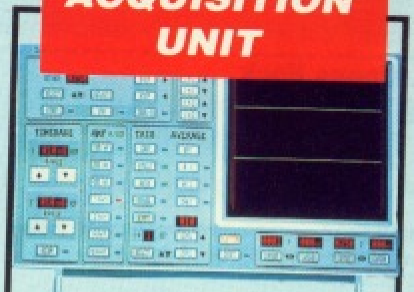


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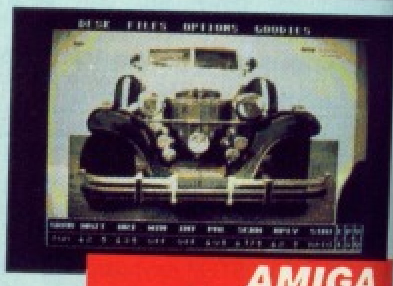
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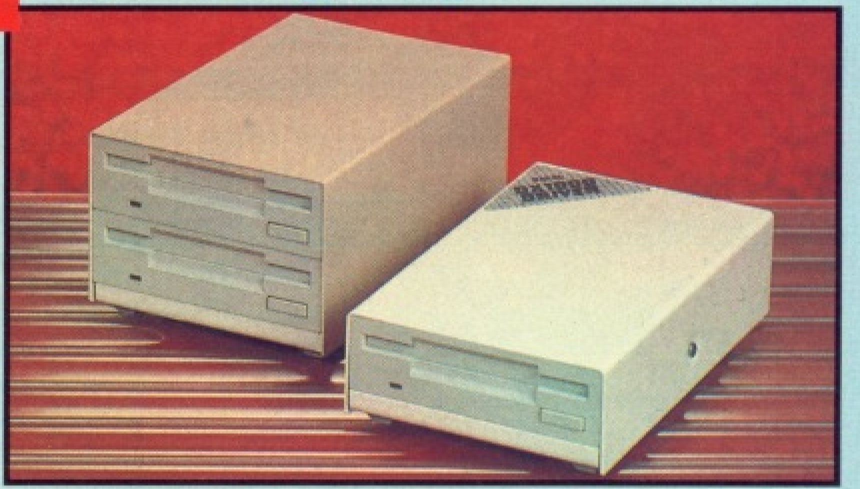
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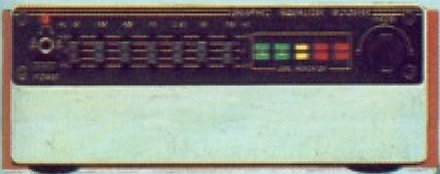
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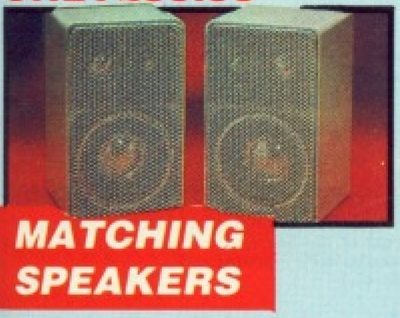
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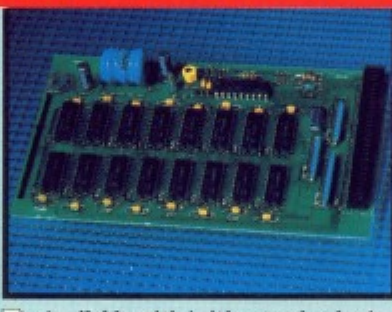
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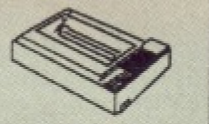
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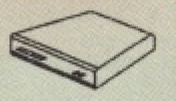
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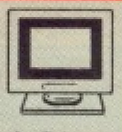
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FORMAT LETTERS

Are you interested in my-toaster-is-better-than-yours debates? Do you want to tell the world about your Amiga database of 5,000 train numbers? Have you calculated Pi to 2 million decimal places and want to send us the printout? Well, for crying out loud don't write to me about it. Hopefully no *Amiga Format* readers fit into those categories. Your questionnaires show that you are a very interesting bunch who have brains in your skulls and thoughts to express. I want to hear from you – controversy, ideas, problems, disasters, humour, criticism, offers I can't refuse – that sort of thing.

Apart from fame for several paragraphs, what's in it for you is the chance to win an *Amiga Format* T-shirt and binder. These will be awarded whenever I feel like it, to deserving missives. So get typing, writing or sending semaphore to Bob Wade, Amiga Format Letters, 4 Queen Street, Bath BA1 1EJ. I can't enter into personal correspondence or send out signed photos of Andy Smith, and I reserve the right to turn your letter into an origami chicken with wings that flap when you pull the tail.

QUESTIONNAIRE QUICKIES

Question 21 of the questionnaire in Issue 13 of ST/Amiga Format was: "It's your magazine – what do you want to see in it?" We haven't had a chance to analyse all the forms as they are still pouring, flooding, tidal-waving and water-clichéing their way in, but here are snippets from answers to Question 21. A full analysis of the questionnaire will appear in a later issue.

All pages numbered. A demo, some pictures or music on the cover disk. Also examples of the animation tutorials on disk.
Phillip Hardcastle
Withernsea, East Yorkshire

Music and art on the disk from the pros/readers.
Joseph O'Connor
Maghetlafelt, Co. Derry

More tips on music/midi and animation/graphics.
Stephen Spearpoint
Folkestone, Kent

More hints on how to use drawing and paint packages.
ME Jones, Elliotstown, Gwent

I could not agree with you more. Brian Larkman and Jon Bates, our Contributing Editors for Graphics and Music, will be providing plenty of tips and tutorials in their respective areas. We are also backing that up through the disk which will contain animation, pictures, music and utilities that you will be able to use in conjunction with the features in the mag.

More in-depth criticism of creative and technical achievements in game reviews. More discussions about creative processes using computers and not just about the computers and software themselves.
Leo Hartas, Seaford, East Sussex

The creative use of the Amiga is an interesting area and I would like to do a lot more about the people that use Amigas and what they use them for. We've already taken a look at Alternative Image on the video side and more of these sort of features are planned. If you think the world would be interested in how you use the Amiga then drop me a line with the details.

Example uses of professional packages.
Steve Carter, Boreham, Essex

This falls into the same area, but reminds me that we are planning to do retrospective pieces on various bits of software – mostly creative stuff – to see whether they fulfilled expectations. We will be answering questions like: were the reviews accurate? Is the software still useful today? Did it do the job it was intended to do? How many new versions were there and why? This too will obviously require examples of people who have been using a package for a year or two, so once again drop us a line if you think you've got something to offer.

A section discussing the best deals on the market for buying software/hardware cheaply.
Michael Ginnelly
Hounslow, Middlesex

The only way of doing that is to scan the ads in the mag and prices at your local shops. You can do that just as easily as us and any feature on it would be pointless because the situation changes so rapidly. However, features comparing like products are planned and these obviously take into account the price, quality, availability etc of the software or hardware concerned.

On the free disk I wish there more mind/card games like dominoes, cribbage, word games etc. These can't be easily purchased otherwise and your disk would be a suitable outlet.
Philip Smith, Cambridge

There are quite a few of these sort of programs in the Public Domain and we may put particularly good ones on the disk. However, it's much more easily covered in the PD pages where you can make your own mind up which ones you want. Plea for a PD mind games special has been passed to the Tech Ed.

Longer and easier to understand assembly language course.
Paul Bayford
Hales Green, Norfolk

More features at a basic level as the bulk of new users are not interested in C or Assembler.
J Mackey, Woking, Surrey

At present there are no plans for a general assembly language course. In order to learn assembly language from scratch you really need to read fat books on the subject. We suspect it might be a better idea to guide you towards the best books: what do you think? What is in the pipeline is much more specific handling of programming the Amiga. On

FULL MOON BLUES

Dear *ST/Amiga Format* (or whatever you turn into when there's a full moon). Sex and computer magazines. My first thought when I saw the June cover was "Can't they sell anything without having to use sex?" My husband (I think the safe thing to say is that he is not a computer enthusiast, just in case you print this) even picked up the magazine to see what the cover story was – which just goes to prove that sex on magazine covers sells them.

As a woman with various interests that are usually regarded as 'the male province', I'm used to seeing pictures of unclad women on magazine covers but saddened that the company concerned thinks it necessary, also saddened that you seem to think that you have an exclusively male readership. I'm not asking for male nudes but it would be nice if computer magazines stuck to computer-relevant subjects for their front covers.

The article didn't go into enough depth and there were too many pictures in my opinion.

Mrs P Bates
North Walsham, Norfolk

The biggest problem seems to be that computing is regarded as a male pastime. It seems to me that the only way to eliminate sexist drivel in the computer industry is to increase the proportion of women involved with it. Most surveys reveal that 95% of computer users at home (not business) are male and therefore the advertising and magazines are aimed at them. I'm not saying that condones the sexism or the exploitation of women, but you have to deal with the causes and not the effects to get a lasting solution.

The answer is simple – we need more women to get into computing, writing games, becoming journalists, buying magazines, logging on to bulletin boards and making themselves heard. There are plenty of non-sexist men in the business but there's always someone willing to exploit the female body while it can be done for financial gain.

CONTRADICTIONS CONFUSE

The articles in *ST/Amiga Format* 13 about software piracy and the life of a programmer inspired me to express my views on these subjects. Did these two articles not contradict each other? In one you said that pirates are 'meddling with people's livelihoods' and 'reaping the rewards of their hard work', in the other you said that programmers earn 'lots and lots of money'. If both statements are true, then I for one would be happy to become a pirate if the only result of my evil doings were to deprive some yuppie of buying a second Porsche.

Aidan Donnelly
Kilmacud, Dublin

It is possible to make a lot of money out of games programming, but that only applies to the minority. For every successful programmer with a sports car and large house there are umpteen others struggling to make a living in a very tough industry. It's like any other industry – there's a minority at the top that rake the cash in while the majority are battling to be part of that affluent minority. For instance, just because Michael Jackson makes a fortune every day doesn't mean you can lump the garage-band down the road into the same category with him.

Nobody likes hearing the bad news, which is why you don't hear too much about programmers struggling to eke out a living. Perhaps they would like to write to us and even the balance.

BACK TO THE NIPPLES

I could not resist responding to the letter from Dermot Byrne printed in your July issue. It would appear that it is not only beauty that is in the eye of the beholder. Mr Byrne appears to have nipples in his.

The front cover of your June issue clearly shows a view of the girl from behind. Admittedly I have not seen "9 1/2 Weeks" but I have certainly never met a girl with nipples on her back. I found your article a reasoned approach to a difficult subject. It never even occurred to me to count the number of nipples.

I suspect the problem is that discussing sex is like discussing politics. People approach the subject with strong, predetermined views. They then react according to those views rather than to the discussion itself. The moment you mentioned the word 'sex' you were on a loser.

PS I'm sorry I'm not female.

John Ray
Letchworth, Herts

Auntie Bob replies: well luvvie, you'll have to come to terms with these feelings. There's nothing wrong with wanting to be a woman and I'm sure there are plenty of private clinics who will be prepared to help you out.

the Basic side this will probably take the form of a beginners' guide, while on the more techie side it will be about getting the most out of the Amiga hardware – much more valuable for both beginners and experts.

More PD reviews, more competitions, art gallery.
C Cotton, Daventry, Northants

Yes definitely, maybe, yes.

More attention paid to basics. Don't assume that your terminology will be understood.
RD Chambers
Killamarsh, South Yorks

Absolutely. Obviously there are some subjects where a lot of technical knowledge will be required, but everything will be written and presented in a clear and concise way with as little jargon as possible. At the same time, many readers already know a hell of a lot about these things, so we will throw in some special extras for them.

More info from other countries comparing soft- and hardware.
Cpl I Winton, Aldershot, Hants

We are currently investigating getting columnists in the US, Europe and further afield. If anybody thinks they fit the bill then drop me a line. We will definitely be covering the scene abroad whatever happens – even if I have to make expenses paid trips myself (Dream on – Pub).

More on programming graphics, fractals, quantum mechanics etc.
David Head, Adstock, Bucks

I'm afraid we can definitely publish articles that may (or may not) be about quantum mechanics, but it's uncertain whether or not we can publish articles that definitely are about quantum mechanics – see "The Uncertainty Principle in Electronic Publishing", Heisenberg (or was it Dirac?), 1930 (or possibly 1934).

Wargames reviews, a more varied selection of reviews each month – not just shoot-em-up games.
Alan Varley, Redruth, Cornwall

A good adventure column.
S Marston, Burton-on-Trent, Staffs

We are not planning to have specific sections for war, strategy or adventure games, but prefer to cover them in the main Screen Play section. We certainly are not going to cover just shoot-em-up games – we are going to look at every game we can get our hands on. We are not biased towards any particular type of game, because we love them all. And Andy Smith, our Reviews Editor, is expert at, and particularly keen on, them all.

More music software, more hardware, less reviews of games which will not be out for months.
Michael Herrington
Great Baddow, Essex

There is an ever-increasing competition amongst magazines to get the first review of a game, which has led to a lot of problems over the last year. FOFT and Populous have been classic examples. We are not going to stop reviewing 'pre-production' games (ie they might lack the packaging or title screens), but we will only review finished ones. We will try to avoid the review beating the game to the streets, but with magazine lead times of between three and six weeks (we wrote it that long before the review hits the streets) it is impossible to guarantee 100% that it won't happen. After all, you wouldn't want out-of-date reviews, would you?

Lots and lots of free or very cheap stuff.
Scott Orchard, Throop, Dorset

Sorry, this one completely floors me. Do you mean on the disk, because you get that free in the cover price. If you mean the special offers, we will continue bringing you lots of them every month. If you mean PD stuff, ditto. If you mean competitions, we will be doing those too. If you mean anything else – I give up.

A fresh, clean, unused, preferably new £50 note.
J Bennett, Breastow, Derby

Sex and violence, money, cover mounted Ferrari.
C O'Dwyer, Catford, London

Pokes, bundles of £5 notes.
Danny Sweetman, Huntingdon, Cambs

Free Ferrari in every issue. Just keep it good OK.
Graham Ing, Stubbington, Hants

Ferrari? No problem! That will be £150,000 an issue, please.

More Workbench, Amiga DOS help would be excellent.
PC Neal, London

More Workbench there is, and even more Workbench there will be. Help with Amiga DOS depends on exactly what you are having problems with – write to Workbench and we can deal with it there.

Kim Bassinger (again!)
JJ Shardlow, Eastbourne

How about a picture of me instead? No, I thought not.

Puzzle feature – perhaps even a crossword on the disk?
RS McCrea, Greenisland

An excellent idea. We would love to put a puzzle or crossword in the magazine or, better still, on the disk. Does anyone out there fancy compiling one every month? Get in touch with me.

Treble tips page, classified adverts, no demo games on disk – *Wicked* was crap.
Julian Smith, Sheffield

More tips both for serious stuff and games are being provided. No plans to do classifieds at the moment. I don't think Wicked *was crap and most people like the game demos – you are definitely in the minority on that one. A vocal minority? Write in!*

Something for advanced users (advanced C routines?). News on other machines (a summary of what's happening). Not so many of these game demos – they are basically a way for companies to advertise and they are really naff. More utilities and PD stuff.
A Bovingdon, Ongar, Essex

There is another side to the game demos – they also give potential buyers a chance to test the game out before they shell out hard-earned cash for them. And they're just lots of fun for free. The additional disk space also means that we can do more of everything.

A detailed list of decent music packages that are around.
D Homar, Sheffield

The music pages should satisfy most of that request and there are plans to put buyers' guides on a database on the cover disk. These can then be updated at regular intervals.

Creative stuff – the more unusual the better.
T McIntosh, London

We are all very creative, mostly with excuses, and we have been told we are rather unusual as well. But seriously, yes, it's on the way.

More on DTP, printers and monitors. More game reviews.
RJ Freeman, Leicester

There is a DTP special next month and there will be more to follow in future issues.

My name spelt correctly.
Yogesh Raja, London SW17

Easy.

Please don't get like *ACE*, it really went downhill the last six months or so.
David Ovington, Worcester

The same standards set by the old *Format*, not garbage like *ACE*.
Michael Ashton, Standish, Lancs

This is Amiga Format *not* ACE *and we will be catering for Amiga owners and all their interests. The Amiga market is unlike any other and this will be a magazine unlike any other. We aim to bring you the best at all times.*

It's already perfect, especially now I don't have to read all that ST rubbish.
Anthony Haughty, Magor, Gwent

I won't argue with the first bit, but the ST is not rubbish and if I hear one more 'my machine is better than yours' argument I will lock the sender in a room with just a ZX80 for company. But then...

A good balance between games, serious and creative software. Lots of reviews of new hardware. A cover disk with new stuff on it.
Matthew Bush
Blackheath, London

Sounds good to me.

More cutting software reviews – not so many sycophants.
Jeff Guest, Warley

We won't slag stuff off just for the sake of it – that's stupid – but if it's duff then you can rely on us to say so in no uncertain terms. Plus we review software only on its merit, not to keep well in with software houses.

NO GO ON GAMES?

I have read *ST/Amiga Format* almost since it was launched and I must say that it was with mixed feelings that this Amiga 2000 user read that you would be splitting the magazine into two. I have always found *ST/Amiga* to be very informative and read it because it gave me more interesting information in 'half' a magazine than all of the others did in a 'whole' one.

However, are my worst fears to be justified after this split? Will *Amiga Format* become another games orientated magazine? Your advertising says that *ST Format* will be staffed by the 'authoritative' *ST/Amiga* team, while Amiga Format will be staffed by the 'award winning' *ACE* team. Personally, I would rather read something from someone who knows what they are talking about, than someone who wins awards for navel gazing.
I could be doing the *ACE* crew an injustice, but I was always of the opinion that *ACE* was primarily a games magazine. Can I have the editor's assurance that *Amiga Format* will not degenerate into yet another games magazine.
Tim Gathercole
East Tilbury, Essex

ACE was primarily a games magazine, Amiga Format *is not.* Amiga Format *is here to serve all Amiga users in the best way possible. That means covering graphics, music, games, DTP, PD, video, workbench, news, hardware and anything else there is a demand for. The members of the ex-ACE team are professional journalists who do know what they are talking about and will produce the magazine you want. Anyway, with Jason 'I'm a technical editor – I'm no good at games' Holborn on the team there's no danger of this becoming a games mag at all.*

Anyway, what's wrong with gazing at my navel – it's a very nice navel. I was thinking of featuring it on the cover next issue.

GO ON GAMES?

Aaaagh. On buying my latest *ACE* magazine I was devastated. All my favourite writers disappeared instantaneously, no closing comments, nothing. Then, on buying *ST/Amiga Format*, more than relief came over me. It was totally amazing, the ex-*ACE* team to be concentrated on one computer in one magazine.

But why no warning? Perhaps there was, look at the bottom of the masthead of *ACE* Issue 21. To quote, "Kind regards to the EMAP eejits and failed fatties everywhere." Who wrote that? Anyway, good luck with *Amiga Format*, I'm with you all the way.
Andrew J Reader
Maidstone, Kent

There was nothing meaningful in that little snippet, honest. It was written before we knew about the sale of ACE to EMAP and was just a humorous bit of banter with some of our friends who work at EMAP. When you've travelled around as much as some of us have you make friends all over the place – even with your competitors. A certain Graeme Kidd might be able to tell you more...

CONSOLE COMMODORE

I purchased an A500 nine months ago from my local dealer at £400 which included the standard software. A particular article which I read recently stated confirmed reports of a future Amiga console to be released. Customers who have paid four to five hundred pounds may well be let down with sub-standard software. When the Amiga was first released it carried a status symbol due to its sophisticated hardware and people have paid for that privilege. If a console is to be released based on 68000 technology Commodore will inevitably be required to sell the system at a competitive price what with the PC Engine, ST console, Sega, Nintendo etc. Will the select customer which has been apparent disappear after the Amiga console has been released? Those who will invest in a console may be unable to afford the previous prices. If Commodore opt to aim at the lower market the industry may well be forced to produce sub-standard material to compensate for inexpensive software. A500 owners will be left with a machine which may not be programmed to its full potential. A matter to be taken seriously as it would restrain a prosperous business and regress advancements.
James Scudamore
Bournemouth, Dorset

No plans for an Amiga console have been announced, and none are likely to be. Far more likely is that the A500 will be upgraded into a 1 Meg machine, making it even more powerful, and even cheaper for the technology involved. Have no fear, the existing (and increasing) user base means software houses will keep writing for the basic A500 machine and from there on things will only get better. In fact, it's only just beginning...

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960 ACE RATED

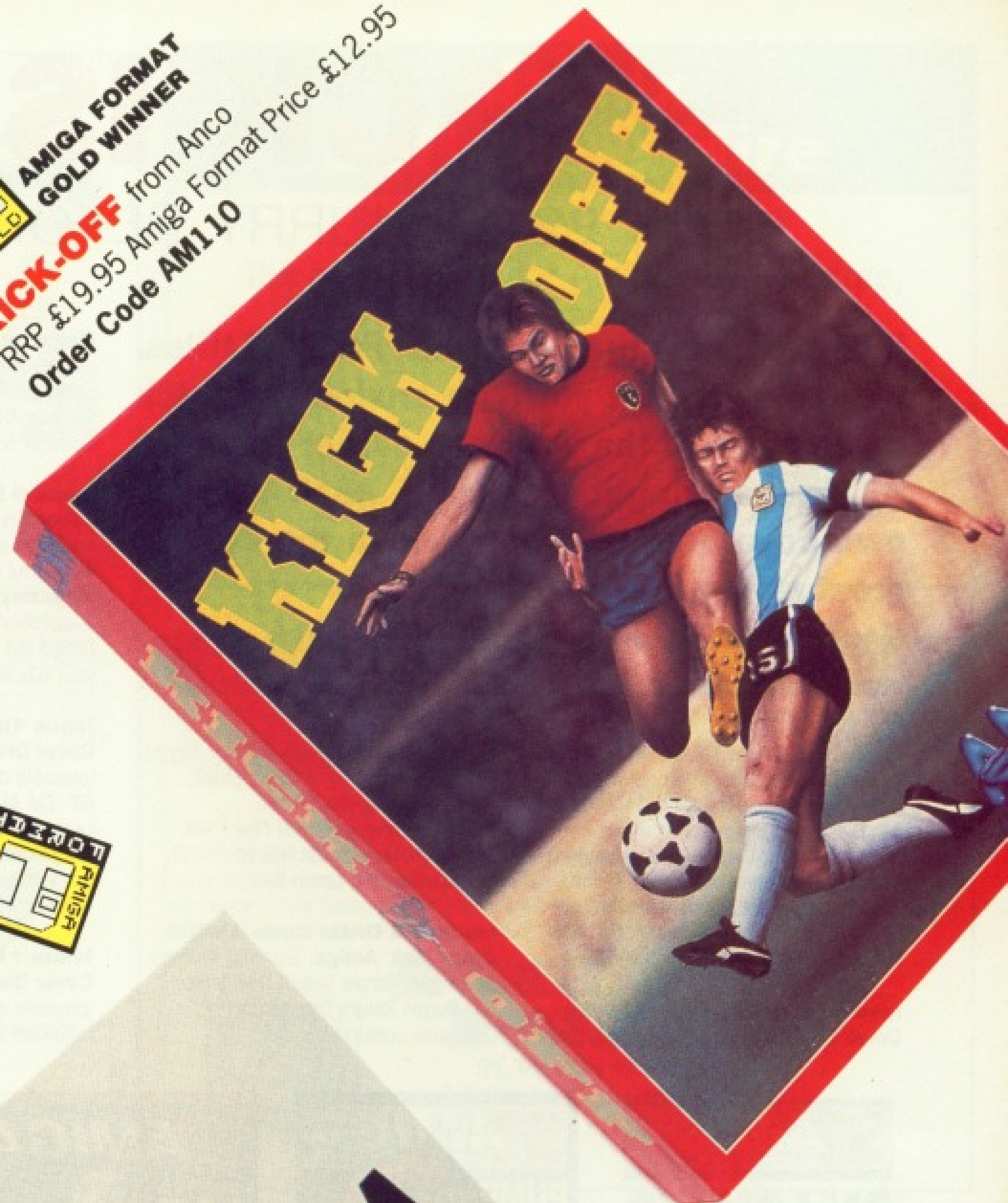
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Cover Disk: **Amiga:** Interceptor demo, Virus Killer, Othello game.
ST: Oids demo, Virus Killer.
Magazine: Word processors evaluated, Graphics packages compared, Pro-sound, Superbase benchtested.

Issue 2-6 ■ SOLD OUT!! SORRY!

Issue 7 ■ Order Code AM207
Cover Disk: **Amiga:** Cosmoroids, play the game, MCAD design for your Amiga.
ST: Play Level One of Flying Shark, HiSTart, high quality ST art.
Magazine/Full review of Flair Paint, Colour Printers, Shoot 'em up Construction Kit, Learn Basic.

Issue 8 ■ Order Code AM208
Cover Disk: **Amiga**: Stunning scenery generator, Purple Saturn Day demo.
ST: Purple Saturn Day demo, Database construction set.
Magazine: Autoroute (the computer journey planner), Sculpt 4D, a modelling package, Protext (THE word processor for your Amiga then!), Cameron's Handy Scanner reviewed.

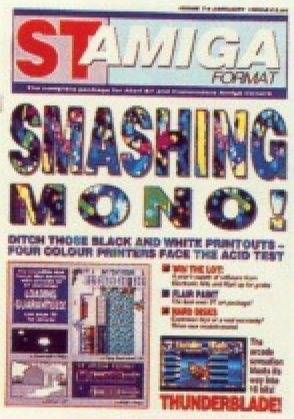
Issue 9 ■ Order Code AM211
Cover Disk: **Amiga:** Yelp, fully playable addictive game. **ST:** Jitterbug, a wonderful multi-player maze game.
Magazine: Buy a modem from our suggestions, Cel Animator for the Amiga put through its paces, Organise your day with Day by Day or Daatafax.

Issue 10 ■ Order Code AM210
Cover Disk: **Amiga:** Cybernoid II (playable demo), Learn Devpac 1.
ST: Zak McKracken (playable demo), Learn Devpac 1.
Magazine: Upgrade your machine with extra magabytes, Daatascan hand-held scanner from Kempston Samplers.

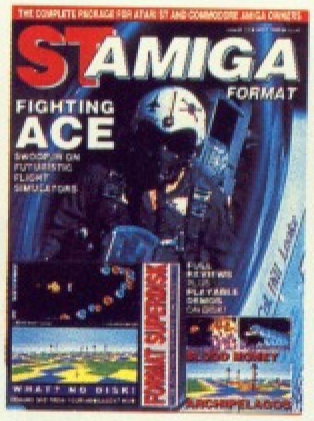
Issue 11 ■ Order Code AM211
Cover Disk: **Amiga:** Blood Money (playable demo), File requester, add requesters to programs.
ST: Archipelagos, playable demo, Fastmouse, speed up mouse operation.
Magazine: Make yourself a sound sampler, Deluxe Paint III, Animation tutorial, Why not invest in a better screen? Here's the choice...

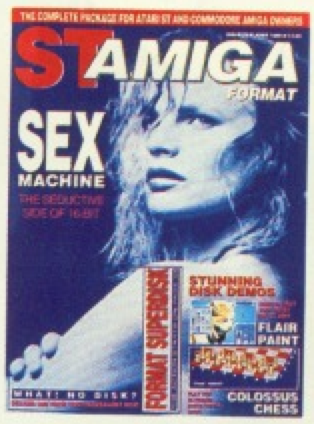
Issue 12 ■ Order Code AM212
Cover Disk: **Amiga:** Colossus Chess, playable demo, TirusX V3.1 protect your disks against viral infection, Boot intro, add scrolling messages to your disks.
ST: Flair Paint, usable demo of this brilliant art package.
Magazine: Video digitising, Attach a midi system to your machine and make music, The best available joysticks.

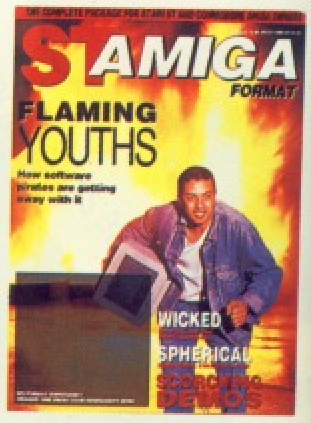
Issue 13 ■ Order Code AM2113
Cover Disk: **Amiga:** Wicked, playable demo of this totally addictive game, Mandelshow, create infinitely complex pictures with this Mandelbrot generator.
ST: Spherical, an excellent playable demo of this strategy game.
Magazine: Pagestream, a brilliant DTP, Animation techniques, the reasons why, The choice of hard drives.











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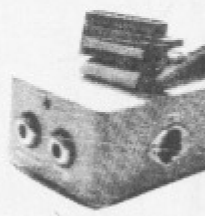
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Guru's MEDITATIONS

FOOTBALL CRAZY

It takes a great game to achieve the *Amiga Format Gold* award and *Kick Off* has caused such a stir here at Future Publishing that a *KO* League has been established. Naturally all the *Amiga Format* team are taking part and the matches are played on the Amiga version. So far the whole team is unbeaten, handing out drubbings to the *New Computer Express* crowd in the first division.

ST Format, Amstrad Action, 8000 Plus, PC Plus, sundry publishers and artists are also taking part. However, it looks like it will be an internal battle for the championship – currently led by Smith's Mahoons – with Wade's Wibblers and Noonan's Nutters hot on his heels after a tense 3-3 draw. Holborn's Ninja's are battling for promotion from the Second Division with Gilham's Gonads. Keep us posted on your own leagues and maybe Anco can get a national championship together…

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Captain Whinge

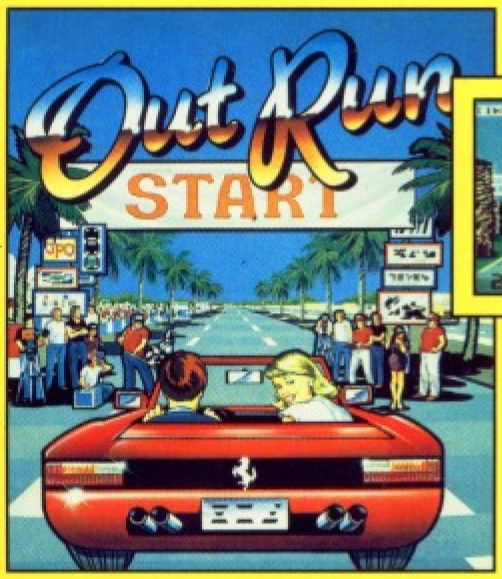
"...so there he is wibbling away about how crap the game is on an Amiga just because it's been ported across from the ST and they didn't spend several grand getting it converted, and I tell him that it makes no odds to the gameplay so what does it matter, and he chunters on about how you can easily tell Amiga screenshots from ST ones because of this line of pixels or other, and because the border strobes at a different rate when you jump up and down on one leg waving a vegetarian quiche in the air or some such nonsense, the guy thinks raster is a Jamaican fashion, and he just wouldn't accept that nobody gives a toss about it and we only want to know how much fun it is to play and..."

NEXT MONTH

Everything you need to know about the DTP scene by the people who know it best. Brian Larkman launches his Graphics section, featuring authoritative reviews, informative tutorials, stunning art and lots of interaction. Plus reviews of the latest video products, all the latest games, tips, advice, PD and a cover disk absolutely packed with useful and entertaining software.

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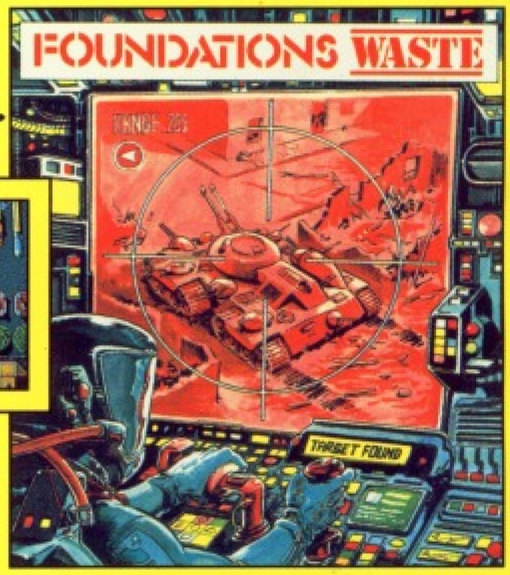




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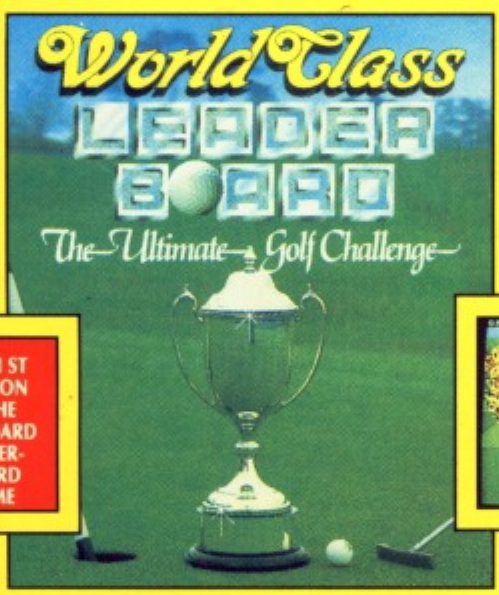


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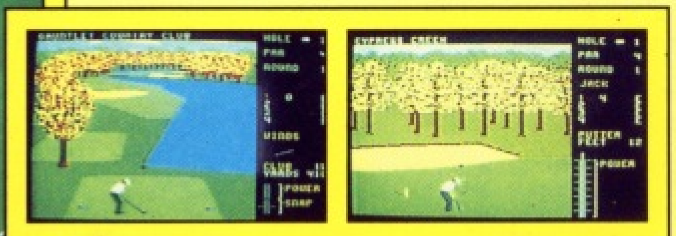
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